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ABSTRACT

The papers in this collection were initially presented in two successive conferences that dealt with the collection, use, and reporting of spoken language for educational research. The ten papers deal with the method and procedures used in studying talk in a school situation; an analysis of the interaction between the researcher and a group of school boys during an interview; the linguistic aspects of talk as a necessary prerequisite of educational research; the mutual comprehension of social rules involved in talk; an examination of the level of communication in small group discussion; the social context necessary for honest responses in interviews; the psychological aspects of interpreting talk in educational situations; the prerequisites of communicative competence during the first days at school; an analysis of spontaneous talk between mothers and children in the home; and a discussion of the methodology of tape recording conversations, including some of the problems involved in recording. Seven pages of references are included. (MAI)

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Uttering, Muttering

Collecting, using and reporting talk for social and educational research

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compiled by Clem Adelman from contributions by

Paul Atkinson
Douglas Barnes
Ian K Birksted
Frankie Todd
Helen Simons
Michael Stubbs
Gordon Wells
Mary Willes
Peter Woods

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This set of papers emerge from work initiated whilst I was a Senior Research Fellow at the Centre for Applied Research in Education, University of East Anglia.
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INTRODUCTION

The papers that are collected into this book were initially presented to two successive conferences titled "Collecting, Using and Reporting talk for research in education". Both were supported through grants from the Social Science Research Council. The first in September was organised in conjunction with Mike Stubbs and held at Nottingham University. The second, in April 1976, was held at Reading University.

The idea for these conferences emerged in 1974 after hearing a paper which proported to summarise the research concerning "Language in the Classroom". At that time I was working on the Ford Teaching Project[1] which used classroom talk and associated interviews with pupils and teachers as its main information for the categorising and classification of pedagogic actions. I was worried that this paper lacked coverage and relevance to the problems of research into educational practice. Initially prompted to arrange a conference about "Language in the Classroom", I realised that this purview was too limited, it needed to be extended to include researchers who were collecting talk from all parts of the educational system. Discussions with Mike Stubbs helped clarify potential issues. As the collected talk is used as evidence for statements to illustrate cases and categories, the methodology of using talk required discussion. David Hamilton suggested that reporting talk should be the third strand.

Mike Stubbs and I drew up a list of potential participants who were invited to notify other people whom they thought might be interested in the theme of the conference. Those who finally attended the conferences came from a wide range of disciplines but it was hoped that common problems would be uncovered, stimulated by the presentation of papers around the theme of the conference. To the satisfaction of the conferences members, such discussions ensued. The participants were:

Paul Atkinson	University of Cardiff
Douglas Barnes	University of Leeds
Diedre Burton	University of Birmingham
Irene Bowman	Institute of Education, London
Ian Birksted	University of Sussex
Richard Choat	Social Science Research Council
Jenny Haystead	Scottish Council for Research and Education
Martyn Hammersley	Open University
David Hargreaves	Manchester University
Frankie Todd	Leeds Polytechnic
Maureen Shields	Institute of Education, London
Helen Simons	Nuffield Foundation
Mike Stubbs	University of Nottingham
Irene Robertson	I.L.E.A. Oracy Project
Paul Willis	University of Birmingham
Rob Walker	University of East Anglia
Mike Whitehead	University of Dundee
Gordon Wells	University of Bristol
Peter Woods	Open University
Stephan Zaklukiewicz	Scottish Council of Research and Education

Elizabeth Newson replied to Helen Simons paper at Nottingham. Peter Trudgill attended the Conference at at Reading.

Talk is the most sensitive and accessible indicator we, as researchers have of the nature of social relationships, their concommitant values and aims. Talk contributes to the construction of meaning, and social context and through talk the sharing of experience and the developmental stages of getting to know the world are facilitated. Speakers use talk as an instrument; researchers use talk as an indicator.

The main activities of members of the education system include decision making, implementing policy, teaching and negotiating differences in values and priorities. These activities are manifested and recognised by particular qualities of their talk. It would seem sensible for research in education to make this talk its information base. Of course the survey is necessary to obtain a depersonalised over-view of particular parts of the system, and attempts to count the occurence of specific phenomena (as in check lists or category systems) also have their place in the range of methods appropriate to research in the educational system. However, as human inter-action is predicated on meaning, studies which include talk are potentially more credible as representations of the activities of members of the system. As researchers using talk we begin with rather general ideas to test through people's accounts of their particular experiences. Research based on talk penetrates into the human activities of the system. Researchers presumptions about roles are often subsequently upset, along with conceptual maps concerning the inter-dependence of members of the system.

The activities of members of the system are sensitive to social context. A role is not constituted by an invariant set of actions but is a concept of relational actions influenced by the presence of other persons, setting (where) when, topic and task. Apart from some studies of classroom life and the study by Woolcott[2] of the School Principal, the "context of situation" has hardly been explored in the educational system.

Those researchers who use talk as the basis for their endeavours provide the reader with transcripts upon which researchers interpretations are based. By providing this original data the reader is offered access so that if he is inclined he may make other interpretations. At least the reader may respond to what is recognisable to talk of another human being rather than a putative description of actions of a role. Talk carries the emblems of a speakers identity. The reader, it is hoped gains greater access to the issues of those research documents as compared to the documents which only report in the form of statistics and taken for granted notions of role.

However, using talk as the basis for research is laden with relatively new problems for researchers in education. For instance, the aspiration to promote wider access to research reports often involves negotiation with the subjects of these reports in order to gain permission for wider distribution. Transcripts might have to be given clearance by those who undeniably uttered the talk so reported.[3] The total report about an organisation or enterprise may have to be amended before it can be released publically, indeed sometimes such reports have had to be with-held.[4] Research which depersonalises in the form of models or statistics does not usually have such problems with clearance (although it may have similar problems in negotiating initial access). Such reports have an aura of 'objectivity' on the grounds that the author's own values have not become involved in the course of 'scientific reasoning'. Without going into discussion of these important issues should we not ask why such reports are so readily acceptable by policy makers and the mass media, whilst often being resented and indeed rejected by the subjects of study as being inadequate and unjust in their representation. Such reports absolve the policy makers from illustrations of the practical consequences of their decisions. Reports based on talk may avoid real issues but they may be seen to be doing so by their non inclusion of significant events and absence of significant persons utterances.

The conference included participants who had been working in one or more of the following approaches.

1. those committed to field work methods in social research;
2. those concerned with talk as a means to facilitate the development of understanding by learners;
3. those concerned with how people make sense of everyday utterances by drawing on their knowledge of what they assume to be shared interpretations of the meaning of actions within the culture;
4. those concerned with teacher talk, this approach includes the use and construction of category systems and check lists for analysing the components and teaching styles; category systems and check lists for assessing the quality of teaching and categories for analysing the linguistic components of teacher talk;
5. those concerned with evaluation through the methods portrayal and illumination;
6. those concerned with child development;
7. those concerned with social control and language use - what is usually included under the rubric 'socialisation'. The work of Basil Bernstein and his research colleagues are an example of this approach;
8. those concerned with the teaching of English as represented for instance by the National Association of Teachers of English.

Peter Woods considers the methodological and procedural problems arising whilst engaged in the study of a school. Ian Birksted makes explicit his doubts about the nature of the information he collected from interviews with a few boys about the relationships between their experiences of school and their life outside. Whilst Woods tells us about problems researchers might meet as a participant observer engaged in the school as a whole, Birksted illustrates the sort of interaction in which the participant observer might engage in order to elicit detailed information from individuals. One of Birksted's main points is that misunderstandings that arise from the researchers questions should be taken not as impediments to the inquiry but as resources for further investigation. Sensitivity to such misunderstandings fosters the ~~in~~reflexive aspect of fieldwork.

Mike Stubbs contends that those who use talk for research purposes should be more aware of the linguistic aspects of its organisation. He suggests that studying the linguistic organisation of talk is a necessary pre-requisite to educational concerns; although he explicitly does not exclude social context. Stubbs' paper does not, however, concern itself with the problem of how hearers interpret the meaning of talk. Both speakers and hearers utilise social context in which the talk is embedded to assist the conveyance of meaning.

Some Conference members were concerned with the lack of satisfactory criteria for establishing universal attributes of social context. However, as the ethnomethodologists suggest and the remarkable paper by Frake[5] illustrates, talk is inextricably part of the social context. It would follow that any attempt to delineate the range of social context in a culture in terms of membership, place, time and task is only possible by attending to the talk manifested during activities. However, the essentially repititious nature of activities which embody and sustain the stability of the culture (from the point of view of an adult) may often be recognised by membership, place, time and task without referring to the talk.

If we set out to make explicit the range of social context in which a range of different talk occurs, we should be uncovering the rules which relate the utterances to the social context. Whether all talk can be shown to be based on social rules has yet to be demonstrated. However, misunderstandings and 'inappropriate' use of talk, when made explicit by participants, indicates that talk is based on assumed mutual comprehension of social rules. It is with these issues that Paul Atkinson's paper is concerned. "The problem of grey hair" provides the reader with a blow by blow description and analysis of an event in the induction of novice doctors.

The paper by Barnes and Todd is an account of the problems they met during research on an autonomous small group learning outside the classroom. They make it clear that they tried a variety of established linguistic methods to analyse their transcripts. They hold that only an analyses that represents both social context as well as incorporating what would be organised as linguistic features of talk would be adequate to the complexity of the social interaction. They put forward the outline of their categories for analyses. Barnes and Todd approach the requirement of Stubbs that the organisation of linguistic data be acknowledged in any analyses, yet at the same time diverge from Stubbs in their emphasis on the incorporation of social context and means by which talk facilitates the learners understanding.

Helen Simons illustrates how the researcher must be aware of the social context in order to be able to elicit honest replies from interviewees. She indicates that although the researcher may be versed in the techniques of interviewing, what is elicited may be invalid if the researcher is not conversant with the fine qualities of the social context in which they are working.

Although shifts in topic and speaker are manifest in talk, the action of interpreting utterances is invisible, psychological. The invisible moment of attributing meaning may have significant consequences for understanding or misunderstanding in educational situations. For reasons of authority, politeness, boredom, deference and so on, utterances are often allowed to pass by unremarked. We can often sense a misunderstanding but cannot locate the source. Clem Adelman reports the method of triangulation which resuscitates moments in conversations, providing participants with transcripts for reflection and comment. This method depends on the witnessing by the researcher of the event. The researcher draws on his own observations in order to formulate questions and follow the references in the replies. The witnessing referred to cannot be done adequately through audio-visual recordings alone. However, the participant recorder like the participant observer probably perceives sufficient of the total situation to initiate triangulation.

Mary Willes' contribution is a case study which encompasses many of the issues referred to in this introduction. It is an account of how children are introduced to the pre-requisites of communicative competence during the first days at school.

Spontaneous talk between mothers and children in the home forms the basis of the paper by Gordon Wells. Wells illustrates how talk shapes understanding between child and mother with examples that provide the reader with setting and the linguistic context of intonation, pitch and stress. Wells suggests that there are preferred, most highly valued ways of using language to shape and develop cognition and understanding. The author indicates the method of collection and the means by which utterances are analysed. Recently having refined the system for analyses Wells has said that he would like to develop a means of analysis that takes into account negotiation towards mutual realities (inter-subjectivity). However, the extensiveness of this particular study, which sampled mother child talk, precludes the collection of the detailed histories of each relationship.

The portable tape recorder is an invaluable aid for the researcher who wishes to collect talk. What is collected is accurate as far as the microphone is sensitive and what is reported is correct as far as the transcript is accurate.. People whose talk is transcribed often comment on what appears to them a lack of coherence on their own talk. Whilst recordings do provide more fidelity, verbatum notes, although selective, may convey the intended meaning of an utterance to the reader more satisfactorily then the unamended transcript. The onus of selection and editing falls finally on the researcher who should as far as possible include details of any modifications of transcripts in his reports.

The second paper by Mike Stubbs was written some time before these conferences and provides, in a witty manner, a discussion of the methodology of recording, uses and problems.

The conference participants did not consider that the possible forms and problems of reporting talk have been sufficiently covered. However, the papers in this book read in conjunction with those arising from the case study conference[6] held in Cambridge in December 1975 would deal with this issue reasonably well.

The dispersal of information and experience of the collection, use and reporting of talk has already been mentioned. As these papers indicate there were more unanswered questions than solutions. However, by selecting within these papers, those who aspire to use talk as their information-base for research in education, and in the wider field of social research in general, should find useful guidelines for the conduct of their own endeavours.

Clem Adelman
D.E.S. Research Project
Bulmershe College of
Higher Education,
Reading.

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4. An exceptional instance of a fifteen year delay between research and publication is embodied as W.H. Whyte and E. Hamilton Action Research for Management, 1965 Homewood, Ill., Irwin Dorsey.

5. C. Frake, Struck by Speech: The Yakan concept of litigation in J.J. Gumperz and D. Hymes Directions in Sociolinguistics, H.R. Winson, 1972.

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UNDERSTANDING THROUGH TALK

Peter Woods
The Open University

I have been concerned in my research to discover and report the experience of teachers and pupils in school. My general conceptual framework has been within the symbolic interactionist tradition of Mead, Blumer, Goffman and Becker.[1] Clearly, subject matter and methodological theory place heavy reliance on talk both as objective data and as an agency, and in this paper I want to discuss some aspects of this which seemed of particular note in my study. First, in order to have some idea of where all the talk led to, I will give a brief account of some of my conclusions to date, the interpretations I have made of my material, and some of the theoretical implications I have seen in those.

I went into an ordinary Secondary Modern school with as open a mind as I could manage, ultimately moving freely around the school, observing lessons, sitting in the staffroom, talking to over 300 pupils for periods ranging from 20 minutes to three hours, many of them several times over the period of the year that I was there, making field notes and recordings of as much as I could by whatever means I could. I had been impressed by the grounded theory approach of Glaser and Strauss,[2] and looked to develop my theory from the research as it unfolded. After a term in the school, I listened to all my tapes and read through my notes. There were certain regularities in the pupils' conversations with me which provided certain themes. One of their preoccupations was an aversion to being shown up by teachers. From my material I was able to make a study of the process, and to accumulate more material in accordance with the trends of the study.

These became the construction of a typology, an examination of the internal structure of the process, a consideration of functions and results, and who was involved. This level of substantive theory involved the introduction of certain basic concepts like negative sanction, surface and deeper behaviour, the self and the other. Formal theory, wherein we locate this within a more widely applicable framework, requires a broader base. Tentatively, I associated the 'showing up syndrome' with certain pedagogical styles which are underwritten by psychological models of teaching, childhood and knowledge, social Darwinism and paternalist systems of rule, all within an umbrella of alienation.[3]

Before developing it further however, I returned to my data. In talking about their school lives, many pupils spoke frequently, intensely and at length about 'having a laugh'. This eventually gelled into another theme. What did they mean by it, how important was it to them, what kinds were there, who was involved, when did it happen, and so on. Again I structured my observations and conversations to elaborate, and to fill in the gaps. Eventually I argued that pupils have their own norms, rules and values, and that their school lives are well structured by them in ways not immediately apparent, and not always based on official criteria. In their lives, laughter has a central place, either as a natural product, or as a life-saving response to the exigencies of the institution - boredom, ritual, routine, regulations, oppressive authority. I distinguished between 'natural' and 'institutional' laughter, the latter being produced specifically by the agency of the school. Among the latter I distinguished between 'mucking about', a kind of seemingly aimless behaviour, which I saw as a reaction to boredom; and what I called 'subversive laughter', a more political reaction. Strictly authoritarian teachers can be instrumental in promoting subversive laughter, which can at times degenerate into anger and open conflict; other teachers, by aiding colonisation, avoid it.[4]

This fits the general theoretical framework in that there are the same regularities between types of laughter and groups of pupils as between types of laughter and teacher pedagogical orientation and control techniques. Further light on these 'groups' of pupils came from my study of the subject choice process in the second term of my stay at the school. I concluded that pupils approach this matter in fundamentally different ways. Pupil groups develop group perspectives, and for these subject choice has different meanings, one group employing an official educational model, the other a counter-official, social model. These perspectives are connected with social class, parents showing similar interpretive frameworks as their children. Teachers mediate these filtered choices still further, motivated by a critical external influence which demands ever improving examination results, and which involves the re-channelling of misdirected choices. All of this portrays the school as a massive and relentless imprinting agency in the service of social selection.[5]

Throughout, I have favoured forms of what I call naturalistic or behavioural talk, as opposed to reported talk, that is talk heard and noted by me in the ordinary course of events. The whole point is - how ordinary is ordinary? For a start I detected three levels of ordinariness associated with three levels of access. When I first went to the school I was shown carefully pre-selected scenes and witnessed 'educationist' performances. This was the public, outer face of the school in its Sunday clothes. The second level came with the relaxation of this strict control and shop-window performance and allowing me general freedom - the school divested of its clothes as it were, but not until more time had elapsed had I built up enough trust and concord with the inmates for them to confide in me their innermost thoughts and feelings and thus reveal to me how the school operated in its very vitals. I was not aware of being given actually contradictory information, though it may have been limited, and hence distortional, out of context. To guard against this I employed the usual precautions - distinguishing between subjective and objective data, invoking the criteria of plausibility and reliability of informant, but chiefly by triangulation and cross-checking of accounts, including on a temporal dimension.

I was fortunate in finding some key informants. They helped give perspective to the entire methodological front from the very beginning, for example to identify the nature of other people's talk and behaviour. One instance of this arises from the distinction between educationist and teacher talk.[6] It is not surprising that in some contexts there is a big difference between what teachers say they do and what they do. In a different context, they might say things that accord more with that performance. The gap will be wider if one does not progress beyond the first two levels of access, and it might be difficult to spot if there were no informants. Similarly, key informants can alert us to alternative explanations of the talk and behaviour of others that we perhaps have no other means of knowing about, so that we can get a grip of the various rhetorics presented to us, and how consciously and seriously they are held. It helps here to have various kinds of informants. The more they constitute

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a cross-section of the population in question, the better. I was lucky in being able to forge close ties not only with the reformist left-wing Art teacher and the libertarian Social Studies man, but with the traditional-conservative head of Games, who had academic aspirations, and the traditional-liberal humanities teacher. On the important temporal dimension also, informants provide a sense of history, interpreting present events as part of a long, on-going process.

My general practice was to use as many cross-validating methods and instruments as I could. For example, I would not know what to make of the content of a personal talk with the headmaster, say, on the matter of subject choice without the benefit of other vantage points. Among these I would include his talk to the third year pupils, and to their parents, their views on it, and the views of those he has taken into his confidence - other members of staff, preferably both for and against - sought if possible on various different situations, which might include public house as well as staff-room and classroom. I never held any formal interviews. The nearest I approached it was with the headmaster, a reflection possibly of the social distance between us. But even then I made no notes on the spot, had no formal schedule, and simply tried to conduct a man-to-man discussion, leaving him to fill the scene that I set as it were. I did as little talking as I could get away with, being intent, as Cicourel advises,[7] on elaborating his meaning. So with other members of staff. Teacher ideologies are revealed not by head-on confrontation but by naturalistic observation, and discussion of other topics. For example, I asked some teachers about a particular form, and asked them to go through the list of names. Most of them I feel sure thought they were telling me something objective about the pupils, when I was really more interested in their conceptions of knowledge, teaching and childhood revealed in such talk. Another device I used was to produce a paper on "pupils' views of school and teachers" which contained plenty of provocative material, and sought their reactions, both to the pupils' views, and to my interpretation of them. The basic idea behind this tangential approach is to remove the fear of being a subject of study, which I suspect has coloured too much of the institutional presentation to the outer world. Such clandestine methods may have a sinister ring to them, but I believe the ethical point rests on the use that is made of such data, and the extent to which it impinges on the private individuals concerned.

If one of the problems in talking to teachers is identifying the various caps they wear, with pupils it is seeing the cap they are wearing. At least we can identify more readily with teacher culture. The road to understanding is a longer one with pupils. Here I should say that I am using 'understanding' as Rosalie Wax does, not as some mysterious empathy, but as a phenomena of shared meanings, when one feels part of the culture and can interpret words, gestures and so on, as they do.[8] We know some of the problems from, for example, Labov's work - explaining defensive, monosyllabic behaviour in terms of the asymmetrical interview situation.[9] The problem of putting them at their ease cannot be met by the normal forms of proclaiming anonymity, universality and impersonality, disclaiming teacher and associate identity, and trying to get across to them in words that this was their platform. I felt that I had to situationally make it their platform.

This I tried to do by having conversations with them in friendship groups. I would go to a class at the beginning of a day, with the permission of the teacher concerned of course, and arrange a timetable for the day, seeing groups of about 4 pupils in double-period slots. Pupils were invariably split up into groups when I entered. If they were large groups, I asked them to split themselves up. Pairs of pupils I asked to invite another pair along. This technique, I believe, had several advantages. The company of like-minded fellows helped to put them at their ease. The bond between them and the way it was allowed to surface shifted the power balance in the discussion situation in their direction. As long as my interventions were not too intrusive, it might facilitate the establishment of their norms, and I might become privy to their culture, albeit in rather a rigged way. Other advantages were that they acted as checks, balances and prompts to each other. Inaccuracies were corrected, incidents and reactions recalled and analysed. Many of the conversations became I believe part of their experience rather than a commentary on it, and this was particularly true of the 'laughter' discussions.

This leads me to consider what these discussions actually did, in a Garfinkelelian sense.[10] Firstly, they did provide me with information, and I think the structure of the group facilitated this. Pupils volunteered information in the company of their friends, and often to them rather than to me in the context of ongoing exchanges with them, that I would not otherwise have been privy to. At other times, they prompted each other - 'Go on, tell him' - 'What about when you ... !

There is another side to the unstructured, naturalistic, group identification approach of course. More forthright individuals can dominate discussions and there is a danger that the outcomes can be biassed in favour of the most outspoken and aggressive individuals. If we couple with this the pupils' natural tendency in a conflict situation to regard an external interviewer as a kind of relief agency, we get an idea of the kind of bias that can creep in, in the pupils' own terms with them fully switched on. I felt that, on occasions, the actual discussion made for grievance. People can talk themselves and others into a temper, or into laughter for that matter, and sometimes I felt there was a thin divide between the two. This clearly has repercussions for their representations of past events. Such discussions should be regarded as data rather than sources of information. This misrepresentations, outrageous lies, melodrama, put-ons can all in fact be turned to research advantage, as long as they are identified. Perhaps the best examples again are in connection with the laughter paper. Many of the discussions held with me were 'laughs' in their own right, that is to say they were generated in the discussion, and possibly the particular configuration of circumstances subscribing to it as reported by them had not led to laughter previously. The discussion thus became part of their school life rather than a pause in it. Also of course the laughter is the important element. For added ribaldry, the facts will probably have suffered some distortion, but that is a natural concomitant of laughter-making.

Surrendering the initiative can lead to results that are very time-absorbing, tedious and discomforting. There is a great deal of repetition. Occasionally people wander off into peripheral monologues. I remember one boy describing at great length his plans for becoming a jockey; a couple of girls their experiences with a gang of hell's angels in Luton; several risque discussions with both boys and girls about sex and fornication. This last is clearly very relevant to my interest in the pupils' cultural experience with their environment. But it reminds me of another of those ethical problems. In a sense, talk is legitimation. The wise man's advice to the young lover not to declare his love until sure of the response is founded on this knowledge. Until he says it, he is free to love another. For me to talk about some things with the pupils might have the effect of legitimating them in their eyes. Even 'listening' can go half way towards this. Smoking, fornication, teacher-victimisation, all figure prominently in the pupils' school life, and thus we need to know about them. But it can be uncomfortable at times, while operating under the auspices, enjoying the hospitality of and making friednships with those who make a career of trying to eliminate these activities. The solution of course is to take sides, and I suppose if one is going to identify successfully with a culture, it is imperative to do so. This leads me on to something else I felt these discussions did, which touches on the 'mysterious empathy' I spoke of earlier. Robert Redfield described how the form in which he came to understand the Mayan culture came to be phenomenologically constituted in his experience, and in some ways I think I went through a similar process.[11] In the early days of my study, I recorded my impressions of the cultural experiences of the pupils. I noted down what the teachers did, what the pupils did, and what they told me about it. As this was during the first stage of access it had only limited value. Later, after many discussions, when I had become what Robert Janes calls a personalised member and had developed a certain rapport with the pupils, I was keyed in to their experience via talk, and it was the talk which led to the empathy.[12] This might be already clear from the 'laughter' examples. Having listened for example to their accounts of how they occupied themselves during school assembly, it was easy to do some of the same things and share in the fun. Obviously one catches something in laughter that is not necessarily expressed in words. The same is true of other experiences, when the talk assumes an onomatopoeic quality. I am thinking here of what I discovered to be the main impact of the school on one group of pupils - boredom. The point I am making is that the way in which they expressed it cued me into the actual experience of it. One of my one or two outstanding memories from the enormous mass of experience at the school is that of pupils talking to me about boredom. They managed to convey, in a very few words largely, years of crushing ennui that had been ingrained into their bones. Great wealth of expression was got into 'boring', 'boredom', 'it's so bo-or-oring here'. The word, I realise now, is onomatopoeic. I could never view lessons in company with that group again without experiencing that boredom myself. They would occasionally glance my way in the back corner of the room with the same pained expression on their faces, and I know exactly what they meant. This then provided a platform for my understanding of the school life of one group of pupils.

The group conversations also enabled me to distinguish between groups fairly easily. There were some very large differences between discussions along several dimensions, the most general one being between those who were turned on by the school and those who were not. Now several people have distinguished between these separate cultures - Hargreaves, Lacey, King, Quine -

a pro-school culture and either an anti-school or a collonisers' culture.[13] But they have not used to a great extent an interpretive perspective which emphasises a pupil's own construction of events and definition of a situation. It was possible to bunch whole groups of pupils together around two basic models. Firstly, you have the diffident, social, counter-official chooser, who, inasmuch as he or she made a positive choice at all employed criteria such as difficulty of work, fun, boring, with or without friends; secondly, the keen, instrumental, pro-school chooser who thinks in terms of future job, his own ability, the learning situation and so forth. I found a contrast between the two not only in terms of what was actually said - the informative aspect - but also between the volume of what was said, and the nature of it. The transcripts display some of the vagueness, unconcern, unawareness, lack of interest of one group; and these come from free-talking situations where the pupils concerned had a great deal more to say about matters that interested them, so that these qualities were all the more emphasised. Later, it was possible to distinguish between the parents of these two groups in a similar way as a result of interviews held with them.

Finally, a brief word about my use of talk. My criteria for selecting extracts in my accounts are basically four - validity, typicality, relevance and clarity. I use extensive quotation - the subjects do a great deal of speaking for themselves. The themes are theirs, the categories are theirs. The sociologist acts first as a roving microphone, then as a book-keeper and filing clerk. By presenting a sample from his files, he can give a tidy, descriptive account organised round certain features which will have a value in its own right. These member typifications are then subjected to social scientific analysis. They are two distinct processes, and ideally should not be confused. The 'rhetoric of interaction'[14] should not be coloured by the analysis, and should be available for alternative analyses. Some of these should be those of the subjects of study, at least those with the ability to distance themselves from the situation, and to look at the analysis impersonally and rationally. In a sense I regarded my feedback of papers to members of staff as the supreme test. One of the best commendations I received was from a teacher of different persuasion from myself who thought the subject choice analysis was "cruel, but true". I hope it was my quest for "truth" (whatever that might be) that was being gratified, but that terse comment caused me to reflect that, among the oft-quoted qualities required of the would-be ethnographer, such as sensitivity, understanding, power of insight and so on, a streak of sadism can, at times, be a useful attribute.

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TALKING AND UNDERSTANDING

"... no purge of the indexicality of accounts ..."
(Coulter, 1971, 303)

Ian K. Birksted

In this article I want to tackle some very serious problems which have been raised by McHugh et al (1974) and by Silverman (1975): all facts are partly created by the researcher, much reality is glossed over and data are simplified to allow analysis; and by Coulter (1971) and Swartz (1960): meanings are relevant to particular contexts and not generalisable from these.

These are fundamental problems for any social researcher who wants to use talk. It is common research experience that informants do not understand, or misunderstand, questions. They have to be prodded in certain directions. It also happens that informants give different answers at different times, in different places and to different people. Or, if no research questions are asked, discrepancies and contradictions are seen in what people do and say in different situations and at different times. My contention here is that such incidents need not be seen as an embarrassing error or the result of a bloody-minded informant. On the contrary, such discrepancies must be pursued actively as a research resource. Contextual variations reveal meaning and, like the effects of the researcher in generating the data, must be used for developing the research. In this paper I shall discuss and exemplify this by going from the theoretical and methodological issues to a concrete empirical example. I shall then discuss one possible foundation for a social anthropology of our own society. This issue is avoided by much social anthropology because it is obvious that traditional methods will not do. Evans-Pritchard put the problem succinctly:

> "Moreover, it is a matter of experience that it is easier to make observations among peoples with cultures unlike our own, the otherness in their way of life at once engaging attention, and that it is more likely that interpretations will be objective". (Evans-Pritchard, 1951, 9).

I will be concerned with showing that the following quotation from a respected book is absolutely misleading:

> "The sociologist who limits his work to his own society is constantly exploiting his personal background of experience as a basis of knowledge. In making up structured interviews, he draws on his knowledge of meanings gained from participating in the social order he is studying. He can be assured of a modicum of successful communication only because he is dealing in the same language and symbolic system as his respondents". (Vidich, 1969, 79, in McCall and Simons).

I will argue that such apparently successful communication is a very definite danger signal.

Thus meaning, context and talking to the researcher are all inextricably bound together, and they will be the three themes of my paper.

1. THE STUDY OF MEANING

The study of peoples' meanings leads one quite naturally to the study of what people say, and hence to the study of the structure of language itself. The study of the structure of language, or linguistics, has been of central important in social science in our century (Chomsky, Levi-Strauss, etc.). 1916 was the year in which the seminal work of Ferdinand de Saussure was published posthumously. In the Cours de Lingüistique Generale, de Saussure redirected the study of meaning from the study of how names relate to objects, to how they relate to each other. Meaning no longer referred to the relationship between word ('blue') and object ('sky'), but to the relationship between one word and other words ('blue' and 'green', 'yellow', etc.). When considering language as a system of meanings, bounded and complementary to each other, de Saussure insisted on the distinction between speech and language. Speech consists of what people actually say, and language is what provides the rationality, the intelligibility, indeed the very possibility, of speech. Speech is usage (of concepts, of grammar, etc.). Language consists of the rules underlying the usage. What provides the possibility of meaning in usage are the differences and contrasts between terms: terms take on meaning in relation to others. De Saussure wrote that "in language there are but differences". (1969, 166).

In social anthropology, language has been used as a model for human behaviour in general. Being a crucial feature of mankind, language can offer a better model than other models previously tried (structural-functional, etc). In this article, I present language as a model for human behaviour, including the research enterprise. By analogy with language, the meaning of data lies not in a corresponding to an external reality (with accompanying problems of good and bad correspondence), but in their relationships to each other in the total research enterprise seen as a system. Discrepant answers are not bothersome facts to be eliminated selectively, but are differential elements meaningfully related to each other in a system.

It is, however, at this precise point that social research can take two completely opposite directions. Research can either disregard variations due to external influences or focus on such contextual meanings.

2. THE IMPORT OF CONTEXT

Black did "ten intensive months of learning to communicate with a handful of its citizens in a white room across a metal desk". (1969; 170). Black claims that the formal situation contributed to the understanding of the belief system, both by increasing consistency through eliminating contextual variables and through the reactions of the informants in the enclosed room which were more intense than in an outside environment. By contract, Swartz describes the following incident:

> "I was standing on a path with a friend of mine when a man approached us. After the man had passed, I idly asked my friend what relation he was to the passer-by. The question was idle because I had only a few days before collected a genealogy showing the man to be my friend's FaSiSo and thus, according to the Crow system present on Truk, my friend's *samei*. My friend surprised me, however, by saying that the man was his *pwi*. Thinking that he might be confused, I asked him if the man were not the son of his father's sister. He replied that this was so and that therefore the man was his *pwi*. I was unable to bring my friend to admit that the man could under any circumstances be *samei*. ... After much thought, my friend said that perhaps sometimes a FaSiSo was like a *pwi* and at other times he was like a *samei*". (1960;395).

I take it that context is important, indeed essential, because it consists of the unspoken assumptions, the shared meanings and understandings, which underlie peoples' ability to understand each other. It is precisely in these shared understandings that lie the possibility of communication. The taken-for-granted is not verbalised and remains as background. It is therefore in context that we find exactly what we are looking for: a key to shared understandings, that is, to culture.

Is context controlling or can it be manipulated? I would argue that both are the case. A certain degree of determinateness, of continuity and rigidity, is what allows sufficient predictability to also permit manipulation. But some contexts are more negotiable than others, and some people more able to negotiate than others. The structure of negotiability is of course central to the study of power structures.

3. RESEARCH IN CONTEXT

The crucial importance of context has two implications. The apparent deficiency of data can be given contextual meaning, and the research enterprise itself can be seen as formative context to data. I shall treat of these respectively.

The sociologist often goes straight to the heart of the matter. If he wants to know about opinions on a topic, he will ask the informant directly what he thinks about the topic in question. The result is that the researcher has to worry about whether the informant is telling the truth or not. Assuming he gets a reply at all, how edited is the reply? Many researchers have found themselves embroiled in inconclusive debates about the problem of detecting lies. Becker mentions the problem (1972, 29) but finds no answer except reliance on a naive hope in the honesty of the informant. Similarly in McCall and Simmons (1969) we find in most of the articles a belief in some basic truth which is to be discovered once the misrepresentations have been effectively cleared.

It can, however, be interesting to see how answers differ in different contexts. How does a question get answered by an informant alone, by the same informant in presence of different individuals, etc.? When does the informant bother to answer? When is the question replied to seriously, when jokingly, When does the question amount to a breach of etiquette? This alternative approach considers that there is a class of possible replies which can be given to any question, including various negative responses. Rather than fighting against or blindly denying possible alternative answers, I would argue that it is useful to adapt to this situation. It therefore becomes less interesting to get one good answer to a particular question, than to get a variety of answers in different circumstances to a question. Insofar as the context of the answers is the focus of the research, the topics of the questions lose their topical importance to some degree. Since we are looking for underlying contexts which we do not yet know, the questions we frame and the behaviour we perform are very exploratory and very groping. We are trying to see how informants themselves define different situations and delimit these, and we cannot know in advance which questions will elicit comparative contrasts indicative of contextual variation.

This approach has serious implications for the objectivity of the research enterprise. In accepting the value of data-differences, we do away with the whole notion of 'hard data', data which we can collect and add to our files without in any way changing its consistency. In rejecting this notion, in accepting our part in creating questions and answers, in intruding in situations and creating a greater continuity across different contexts than informants are used to, we can no longer represent the research enterprise as distinct from the state-of-affairs being researched. Instead the research and the state-of-affairs under investigation form a process, a system of data. There are, in addition, areas which are of little interest to the researcher (specific people, information, etc.), just as there are aspects of research which are of little interest to the informants (theory and methods, etc). The research enterprise as system is therefore the process resulting from the meeting of two partly autonomous systems, the professional researcher and the informants. We can represent this diagrammatically:

Professional research)

The particular research enterprise in operation))

The total life of the informants and their networks)

4. A GROUP OF WORKING CLASS BOYS

In this research project, I wanted to clarify what 'school' meant to a selected number of adolescents. I was interested less in seeing how they fitted into the structure of the school than in how the school fitted into the structure of their lives. I was thus interested in school from the adolescents' own point of view, rather than from the school's point of view. Consequently I planned to carry out participant observation both inside school and outside school.

The area I selected was the catchment area of a Comprehensive school. This catchment area consists of a Victorian terraced and economically depressed area, a post-war council and owner-occupier development, and a 1960's owner-occupied bungalow estate giving directly onto the surrounding countryside. I was interested in the concepts and categories of the adolescents. I could not assume from the start that 'school' would be a significant category to them, nor, if it were, what it would mean.

As part of this research project I studied a group of eight adolescents. Six belonged to a group of boys who spent much time together both inside and outside school (20). This article is mainly about these six boys. Two other boys were peripheral to the group, spending time with the group inside school but seldom outside. All these boys were fifteen at the time of the research and were ending their fourth year at school. The six boys were Rob, Steve, Garry, Peter, Frank and Ken. Rob was a quiet and soft-spoken boy, eager to please people. His father was dead, and he went to bingo with his mother once a week. Rob and Steve both had a tremendous sense of humour and could walk down the school corridor, cracking hilarious jokes all the way. Steve was a particularly self-assured and extrovert boy, able to mix with anybody and with a shrewd sense of humour. Garry was the trouble-maker, standing up to people and trying to get his own way. He also lived alone with his mother. Garry and Peter were more boisterous, fooling around and getting into scrapes. Peter had his hair cut very short, and was keen on playing football. Frank was quiet. Frank spent Saturdays and holidays with the group but nearly all his evenings with his girl-friend at her house. Ken was the high-achieving pupil in a high band. He too was a quiet boy, with a touch of cynicism to him. The two boys who were peripheral to the group were Russ, a tough guy, and Jerry, interested in clothes and looks. The group of six boys all lived in the poorer Victorian terraced area, except Ken, the good pupil, who lived in the 1960's bungalow estate. Of the two peripheral boys, Russ lived in the post-war owner-occupied area, and Jerry in the Victorian area. The six boys saw themselves as a group. Group lore consisted of certain items of clothing which they had bought together on an expedition to Brighton: boots and sweaters. The teachers saw the six boys as a group. They saw this group both as a menace and a cause of despair. Ken was in a different position: he was frowned upon because of his association with the group and because of his refusal to wear school uniform, but Ken was highly praised for his school work. Ken was seldom with the group in lessons, and had, in this way, more leeway for manoeuvre as he was less observable during lessons by the other members of the group: he could work hard and perform well without his every school success being observed by the other members of the group. The others often found themselves in two's or three's during lessons.

The boys would spend school breaks in a terrapin behind the school. There they quickly assembled and soon had the room organised to their likes. Chairs and tables were disposed in a suitable way for a game of cards, windows opened to get rid of smoke and to allow quick disposal of incriminating cigarettes in case of an emergency, cigarettes were lit, cassette or radio brought out, and Steve would deal out the cards. Ken, however, would not usually play, but sit back instead. In warm and sunny weather, the boys would lie on the grass in front of the terrapin, occasionally giving chase to some girls. Ken and Frank would refrain from this. Over the summer holiday, the boys would meet at each others' houses in the morning, smoke, have a coffee, listen to music while playing cards, or sit in the shelter in the local part, or lie around on the grass in the sun. They would meet again after dinner, though Ken often stayed home and Frank always went over to his girl-friend's house in the evening. It struck me how similar were their days during term-time and holiday-time. The impression of the run of the day was that of a relaxed and informal gathering, playing cards, listening to music, having a smoke, chatting, laughing and talking. Occasionally this atmosphere was broken by having to attend classes. School breaks did not seem to be gaps between classes, but classes seemed to be interruptions in the gathering. After these blanks, normal life had to be picked up again and continued. Such was my first experience of participant observation inside and outside school with this group of boys. No great distinction seemed to be made between term-time and holiday-time since classes slotted into the normal run of life relatively easily. So, if the distinctions which adults make and assume to be significant to school pupils did not appear as significant to the boys, which distinctions do they make? How is life organised?

The boys distinguish between 'work' and 'leisure'. In one interview I arranged for Steve to do the interviewing. I handed him my question-cards and sat back, letting him put the questions to the others. My question-card read 'Please tell me where you spend your time'. Steve read the card, and changed the question:

Steve: Where do you spend your leisure time?
Rob: Over the park.

Peter: Up somebody's house.
Rob: Sometimes in Brighton.
Garry: Play cards ... Listen to records ...
Steve: Do you work anywhere?
Frank: Yeah, I work at the Alliance.

Work, for the boys, is not exemplified by or identified with school. Work is the daily cleaning job which they do at the offices of the Alliance Building Society between 5.00 pm and 7.00 pm on weekdays. These office cleaning jobs are handed down from one year to the other as the children leave school to take on full-time employment. The boys were thus told of the jobs by friends, and all went along and applied. Other children from the same Comprehensive work there too. All six boys work there, and so does one of the two peripheral boys, Russ. Some of the boys have other jobs as well. Frank works in a restaurant twice a week, and Garry works in a pub every morning before going to school. These individual activities, though, tended not to be mentioned in group discussions. The boys earn £4 a week each at the Alliance. How do they see these different activities in terms of time during a normal day?

Rob: A day sort of goes in three: in the mornings and afternoons, you sit about. In the evenings, five to seven, you go to work, and after that, to half ten, you sit up the park usually.

We can represent this diagrammatically:

Morning	Afternoon	Evening	
Sit about	Sit about	Work	Up the Park

In this scheme, school has its place:

Steve: At least school takes up your time, gives you something to do. Same as the Alliance, takes a couple of hours.
Garry: Normally from school we just come home, sit down and watch telly.

It can be seen that school is something which takes up time, which occupies time. During the course of my participant observation, I was so struck by the unexceptional place school played that I tried to introduce the subject in an interview.

Ian B: Does school make a difference?
Rob: ... (Silence) ... Pardon?
All: ... (Silence) ...
Ian B: Uh, I was saying ...
Steve: Ah, school? ... (Silence) ... School divides up a lot really, if you think about it. Nine to what, four. There's a school club.
Ian B: Do you go there?
Rob: Not really, I get bored.
Garry: It's the same every week.

Not only is school a time-filler, but it is also something which 'divides up' time. School is something which the boys describe not as an activity in itself, but as something which helps pass the time.

5. A MIDDLE CLASS PUPIL

In the same research project, another case study involved a middle class pupil called Andrew, who lives in an owner-occupier area in Brighton. He lives with his parents and his younger sister in a three-bedroom 1930's terraced house. His mother works in the showrooms of the local Gas Board, and his father is a draughtsman in a local firm. Andrew's parents have been involved in the past in P.T.A. organisation at the

Comprehensive school which Andrew attends. They are concerned about their children's education and upbringing and hope they have not made too many mistakes. Andrew's room is full of radio equipment and record-player equipment. He has a little desk and working corner on one side, and posters of Rick Wakeman decorate his walls.

Andrew has losts of friends and acquaintances and is a popular boy. He and some of his friends run a disco at the school. Pop music is one of Andrew's interests and this forms a central part of his life. Andrew and his friend, Martin, often go to pop concerts. They talk to girls about pop music. Andrew and Martin can talk to girls easily and without embarrassment, though Martin puts on his coolest and smoothest air. In school-breaks, they will discuss the latest pop music chart with some girls.

Andrew gets on particularly well with Martin. Both Martin and Andrew enjoy going to parties, and running the school disco is a central part of their friendship. Whereas Neill prefers to stay home, the other two like going out to bowling alleys, films, etc. At a disco Andrew and Martin are obviously doing their best to act adult and appear extrovert and popular, while at the same time being a bit shy and keeping themselves to themselves more than older adolescents who really are confident and of high popularity.

Andrew's knowledge of pop music and his week-by-week attention to the charts is thus something he invests a lot of time and money in. In return he gains pleasure, popularity, friends and girl-friends. To me, during an interview with nobody else present, he explains that he does not like most pop music and that it is only during term-time that he bothers to follow the charts because of the disco's and because of the girls. Andrew tells me at length about his uncle, who works at managerial level in a record company. He is full of admiration for his uncle, who travels round a lot and has a lot of money and a big car. To me, Andrew thus plays down his involvement in pop culture.

Andrew's parents are 'pretty generous.' 'I get more pocket money than most people'. Andrew has two jobs and can afford to be choosy about other temporary jobs. Andrew's problem is not lack of money, but how to allocate his money. He says that his parents let him do this himself - 'As Dad says, it's my money and I work for it, so if I want to waste it it's up to me'.

Andrew has contact with expensive things, the disco equipment. He is aware of this and is proud of it: '... about £200 worth of equipment'.

Andrew greatly admires his uncle whom he considers to have a lot of money. At the same time, Andrew plays down this material orientation of his. During one interview, an extraordinary quid pro quo developed. I asked Andrew about 'material things'. Other informants whom I had interviewed replied by listing such items as money, cigarettes, records, clothes, etc.

Ian B:	Please tell me about the material things that are important to you in your life.
Andrew:	Trust; and honesty. Friends - without them you'd be lost ...

I was surprised by this answer and tried to word my question differently.

Ian B: And what about objects, things that you can touch?
Andrew: Objects, with your mouth?!! (Laughs) If that's what you mean, I was particularly friendly with one girl before ... You must have heard of her ...

Andrew's interpretation of the concepts 'material object' and 'things that you can touch' was at complete cross-purposes from mine. In Andrew's presentation of self to me, money is played down.

Since Andrew plays different strategies in different contexts, I was obviously a threatening person since I tried to observe him to many different contexts and could, therefore, witness his different strategies.

Andrew: When I first saw you, I thought 'a bit of a nutter. Some foreign student that our English teacher knew. What will we get ourselves into?'

We saw that my refusal to do the morning registration made him less suspicious of me, while at the same time giving him more power to reject me. I suppose that what allowed me to observe him in many situations was the fact that I always remained a bit of a mystery for Andrew:

Ian B: How old do you think I am?
Andrew: I don't know ... whizzing around in a bloody big Volvo, but still only at university ...

I myself seemed to have a foot in two worlds.

6. TOWARDS A SOCIAL ANTHROPOLOGY OF OUR OWN SOCIETY

Thus I tried to bring continuities into the research (asking the same question in different places and at different times) to elicit responses which could be checked for similarity or difference, and I focussed not so much on the obvious content of responses, but more on the patterns of difference and similarity underlying differences in response. I tried to find patterns in the "outside influences" (McCall and Simmons, 1969, 108) which researchers usually think they can eliminate. But in so doing, I came across the kind of misunderstandings and quid pro quo situations described in my two examples. These revealed to me my lack of understanding, the lack of communication between myself and respondents, and proved to be the crack through which I found my way into another way of seeing. Since the obstacle to be overcome in an anthropological investigation in our own society is the relative consensus between respondents and researcher, the common understandings which mask the underlying differences, one way of penetrating these is to use break-downs in communication as indicators of underlying differences. Rather than building on our ability to speak to each other, the researcher can focus on inabilities: there lies the possibility of finding what is different.

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LINGUISTIC DATA IN EDUCATIONAL RESEARCH

Michael Stubbs

Abstract

A large volume of educational research uses linguistic data as 'evidence', 'markers' or 'indices' of teaching and learning processes. But the majority of such studies fail to provide any principled basis for the selection of particular features of language as indicators of social-psychological processes. Many different isolated surface features of language from different linguistic levels (lexis, syntax, semantics, discourse) have been variously proposed as indicators of a mixed collection of high-level social-psychological constructs (e.g. cognitive ability, teacher's social control). Such studies are unprincipled if they treat the language as though it had no organisation of its own. The paper discusses how linguistics view language as a complex system of interrelated levels; the kind of complex relations which sociolinguistics has found between language systems and social context; and a type of discourse analysis which is particularly relevant to studies of teacher-pupil interaction. A study which treats language as an unexamined source of 'evidence' for nonlinguistic statements is reductionist if it ignores the many levels of linguistic organisation in the data. It is argued, therefore, that studies should pay more attention to language as a system: particularly to treating classroom dialogue as a system of discourse with its own rules, linguistic patterns, regularities and organisation.

A great deal of educational research is now concerned with language in education, and in particular with language in the classroom. This paper discusses some problems which arise when such studies attempt to use aspects of language as evidence for educational statements.[1] It does not discuss any practical probe problems of collecting or analysing linguistic data; but considers problems involved in relating linguistic data to educational statements in a principled way. It suggests that many studies which do select aspects of language as data for educational statements have no principled basis for this selection, since they ignore the depth of organisation of the language itself. We are, then concerned with the question: How can language be used as data in educational research, in ways (to use J.R. Firth's phrase) that will avoid "loose linguistic sociology without formal accuracy". (My argument will use examples from educational research, but throughout 'sociology' could be substituted for 'education'.)

Although this paper will be entirely at a theoretical level, its argument has developed from empirical analysis of sound recordings of classroom language (Stubbs, 1975, 1976a) and other types of discourse (Stubbs and Burton, to appear). In these data-based papers I often commit the sins of which I here accuse other researchers.

1. LANGUAGE AS EVIDENCE

Language as a 'marker' of educational processes

There is now a large volume of work which uses linguistic data as 'markers', 'indices', 'indicators' or 'evidence' for social-psychological statements felt to be of interest to educational theory and practice. Much of this work is concerned with studying classroom language: with recording, observing and analysing teacher-pupil interaction and using the language as evidence about teaching and learning process and outcomes.

Between the fieldwork and the published report some sequence of decisions like the following often takes place. The researcher returns from the field with his video-recordings, audio recordings, notebooks or whatever. From these recordings, he selects for quotation and discussion short extracts of, say, teacher-pupil dialogue. And from these extracts, and probably more generally also within his corpus of data, he further selects particular features of language which he regards as evidence for educational statements. But precisely how such extracts do illustrate claims about the educational process is often not discussed. It is often simply assumed that particular details of what teachers and pupils say, can be quoted, and can serve unproblematically as demonstrations of some educational process. Readers are expected to be able to recognise a particular teacher-pupil interchange or sequence of utterances as, say, an instance of a 'closed teaching style', a 'democratic teacher' or a 'divergent pupil'. The fact that extracts of talk are quoted does, of course, mean that readers are free, to some extent, to form alternative interpretations. But in this article I want to question whether quoted utterances or surface features of language do provide evidence of anything non-linguistic.

Work of the type I have in mind includes many excellent individual studies which provide close, perceptive analyses of the ways in which language is used in schools and classrooms. And some generalisations have emerged about the relationships between 'language' and 'education'. But it is difficult to see in what way such studies are cumulative or even comparable. Certainly, they do not constitute a paradigm (Kuhn, 1962) tackling a well-articulated set of problems in well-defined ways, with agreed standards of solution and explanation, and drawing on a consensus of theory. As a whole, the studies lack coherence.

I am referring to studies of classroom language or researchers such as Adelman, Barnes, Delamont, Flanders, Hammersley, Mishler, Rosen, Sinclair, Stubbs, Torode, Walker and many others. I am not, of course implying that these researchers think that they have much in common. But it is perhaps disappointing that such studies have very little in common beyond a loose notion that somehow 'language' is important in 'education'. I emphasise that individual researchers usually have well-defined notions, but overall there is nothing more than this loose consensus. The fact, for example, of studying language in the classroom provides no principled basis for relating such research. The fact that different pieces of research are carried out in similar physical settings can provide no rationale for them. (Atkinson, 1975, p. 180 makes this point very clearly.)

Unprincipled selection of data

The very tenuous and unprincipled relationship between the kinds of studies I have mentioned is evident from two things.

First, different studies claim to relate features of language to a very mixed collection of social-psychological concepts, including: the educability and cognitive orientation of pupils (Berstein, 1971a); teaching strategies, e.g. 'open' versus closed' (Mishler, 1972); the teacher's role, e.g. democratic versus authoritarian (Flanders, 1970); methods of social control in the classroom (Torode, 1976, Hammersley, 1974); different types of classroom organisation (Walker and Adelman, 1976); pupils' and teachers' differing concepts of classroom knowledge (Keddie, 1971, Furlong, 1976). These are a few examples of rather different types of educational process for which language is used as evidence: the list could, of course, be extended.

Second, different studies select a wide range of not obviously related linguistic units, both formal and functional, as 'indicators' of these social-psychological and educational processes. These include: different teachers' use of pronouns (Mishler, 1972, Torode, 1976); the complexity of nominal group structure in children's language (Hawkins, 1969); the functions of teachers' questions and different types of question-answer exchanges (e.g. Barnes, 1969, Mishler, 1972, and others); functional categories of speech acts (Stubbs, 1976a); intonational and para-linguistic features (Gumperz and Herasimchuk, 1972); the overall structure of teaching 'cycles' (Bellack *et al*, 1966). This list could also be extended.

It is not unfair to say that many researchers seem to feel justified in picking out, as evidence, any feature of language which appears intuitively to be interesting. Mishler (1972:297) is one of the few researchers to admit that he has been "relatively eclectic in the types of linguistic units used in drawing inferences". For 'eclectic' one might substitute *ad hoc* or *unprincipled*. Given how little we know about the communicative functions of different aspects of language, it would clearly be a mistake to *restrict* enquiry to any one particular type of linguistic feature, and I am certainly not proposing that. But this is only to admit that the research is still proceeding along heuristic and therefore unprincipled lines, still searching for the socially significant features of language. This does not mean, however, that one is commended to pick and choose linquistic items at random, unrelated to the organisation of the linguistic data as a whole. This would, in any case, merely lead to the unending task of looking for more and more particular features of language, unless these particulars are related to a coherent framework. I am, then, using the term 'unprincipled' to refer to studies in which surface features of language are picked out at random and not related to underlying linguistic statements and descriptions.

Two things might immediately strike the linguist about this research. First: linguistic items are selected, usually with no explicit justification, *from several different levels of language* - including lexis (i.e. words), syntax (i.e. grammatical structure), semantics (i.e. meaning), language function, and discourse (i.e. overall conversational structure). Second: these items - either as unique items or according to their linguistic class membership - are then often related *directly* to social-psychological categories, rather than being first *related to the linguistic and sociolinguistic systems and structures in which they are terms*. For example, the fact that a teacher uses pronouns in a certain way has been said to be evidence of his style of social control (Torode, 1976) or of his pedagogical message (Mishler, 1972). And the fact that children use pronouns in a certain way has been said to be evidence of their intellectual orientation (Hawkins, 1969). It is not obvious, firstly, that the use of pronouns, say, can be considered apart from other characteristics of the speaker's language. Nor, secondly, is it obvious that the use of pronouns relates directly to social and psychological processes.

These two related points amount to the criticism that such studies characteristically attempt to relate isolated linguistic variables to social-psychological categories, as though the language had no organisation of its own. This point is well made in an article by Ashby and Coulthard (1976). They argue, with reference to sociological studies of language, that "sociological categories should not be used to classify stretches of speech as though (the speech) had no other organisation". This means that these studies often attempt to relate concepts at quite incompatible levels of abstraction and generality. Isolated, surface features of language are taken as indicators of deep, general and highly abstract social-psychological categories.

One body of work which does explicitly discuss how to relate linguistic and sociological categories at an equal depth of generality is Bernstein's. His work is an attempt to state causal relationships between a "theory of educational transmissions" and pupils' social class, family type, cognitive orientation and use of language. He accuses other researchers of not having recognised the depth of abstraction of the problem. (See Bernstein, 1975, p. 25). Unfortunately, the deep, underlying principles and categories which Bernstein proposes are entirely unrelated to any naturalistic linguistic data. Bernstein has never made any statement which formulates either how sociolinguistic codes or the concepts concerned with educational transmission (e.g. 'framing') are realised in language.

2. REDUCTIONIST DESCRIPTIONS

Most important twentieth century work in linguistics has been concerned with the complexity of surface and underlying systems and structures in language, and has consequently ignored the relations between language and its social contexts of use. (This is true of mainstream Americal linguistics in the Bloomfield to Chomsky tradition, but less true of British work from Firth to Halliday). But recently much attention has been paid to the importance of relating language to its social contexts of use. Within linguistics, Hymes (1964) and Labov (1970) in particular have led the attack on the Chomskyan concepts of grammars which are independent of social context and context-free grammatical competence. And within sociology, much attention has been paid to the importance of studying social interaction in social contexts. The arguments here are well known: that a failure to study contexts reifies the object of study, by neglecting the interpretive procedures by which situated meanings are constructed, and by failing to treat as problematic the ways in which social order is successfully accomplished by members. The arguments usually amount to the criticism that context-free studies of language are reductionist: they reduce praxis to process; they reduce the study of meaningful behaviour to the study of ideal-typical structures, taking for granted how such structures are interpreted and used in context; and they refuse to study the essential meaningfulness of human behaviour.

I have also discussed elsewhere (Stubbs, 1975) how studies of classroom language are often decontextualised by being treated in strange isolation from other types of social interaction, such as doctor-patient consultations or committee meetings, which are organised by comparable sociolinguistic rules; and also in isolation from sociolinguistic findings about radically different kinds of classroom organisation in other cultures. Again, just the fact of collecting data in the physical setting of classrooms, does not mean that the study will be an adequate account of language in context. Studies of classroom language will remain theoretically *ad hoc* unless they are related to general sociolinguistic principles of language behaviour and draw on observations of everyday life in other settings.

It is therefore no solution to reductionism to make loose references to context and to interpretative procedures *if this ignores the inherent structural and systemic*[2] *complexity of language*. To proceed directly from isolated features of language to social-psychological categories is itself severely reductionist, for it ignores the partly autonomous, complex organisation of the language itself. Many levels of structural organisation are simply bypassed.

Two examples

Two extreme and well-known examples of studies which pass directly from isolated linguistic features to social-psychological statements, entirely ignoring the inherent linguistic organisation of the data, should make these points clearer.

(a) *Flanders (1970)*

There are now a large number of articles which criticise Flanders, and similar research, for bypassing all the interpretive problems involved in 'coding' language data. A linguistic version of this criticism is that such a 'coding scheme' necessarily ignores any inherent linguistic organisation which the talk itself has. Flanders' interaction analysis categories (FIAC) require utterances to be coded directly as pedagogical acts (e.g. lectures, praises). The codings of these acts are then taken as immediate evidence of 'direct' or 'indirect' teaching: the teacher's 'I/D ratio' being computed directly from the simple addition and division of utterances coded into different categories (Flanders 1970:102). This I/D ratio is then further taken, by implication, and with no further intervening argument, as evidence of a teacher's social role, e.g. 'democratic' or 'authoritarian'. This procedure thus takes us directly from utterances (the language data) to social role, (a very high level social-psychological concept) with no intervening discussion of how the language itself is organised.

Specifically, the sequential organisation of the classroom dialogue is ignored. Flanders (1970:2) claims to study the "chain of small events" in the classroom. But FIAC cannot be used to study the structure of classroom talk, because 'events' are defined arbitrarily as "the shortest possible act that a trained observer can identify and record". That is, the 'chain of events' has nothing to do with the autonomous organisation of the talk itself. This organisation is taken for granted in the observation. Briefly, we have to know where an event occurs in structure before we can know what kind of event it is.

(b) Hawkins (1969)

A second study which passes directly from surface linguistic features to deep social-psychological categories is the well-known experiment by Bernstein's colleague Hawkins on how young middle class (MC) and working class (WC) children talked about a series of pictures showing some boys kicking a ball through a window. Hawkins found that the WC children used more pronouns, whilst the MC children used more nouns and complex noun phrases in their narratives. Hawkins takes this finding about the complexity of the nominal group as direct evidence of different cognitive orientation in the two groups. His argument is that the MC children have more possibilities of elaborating and differentiating what they are talking about (since one cannot modify a pronoun with an adjective: "the good boys", but not "good they").

An alternative interpretation is, of course, possible. The pronouns used by the WC children taken account of the conversational context in which the language is used. The hearer can see the pictures and does not need to be told explicitly who "they" are and where they kick the ball. That is, the pronouns do not necessarily have any cognitive function - they might have a discourse function, that is, a linguistic function. The data could be explained with reference to factors in the conversational context: i.e. they could be given a sociolinguistic explanation. They do not have to be accounted for in psychological terms. Note that when Bernstein himself discusses the experiment (1971a, p. 219) he relates the different language use to context, and not directly to intellectual potential.

3. SOCIOLINGUISTIC WORK ON LANGUAGE AND SOCIAL CONTEXT

The question arises, then of what kinds of relationship linguists have found between language and its social contexts of use. I will take some examples from Labov's work to illustrate the depth and complexity of these relationships.

In his original work on the social stratification of English in New York, Labov (1966)[3] found strong correlations between speakers' social class and their use of phonological variables. For example, simplification of word-final consonant clusters (e.g. tol' for told) correlates more strongly with working-class than middle-class membership. Such linguistic variables therefore have predictive power: they are socially significant and can be interpreted as an 'index' of social structure. Note two complications however.

First: Labov found a great range of absolute values of such phonological indices, but agreement in the pattern of variation. When he looked only at the speech of individual speakers he found oscillations, contradictions and alternations which were inexplicable. But the language turned out to be highly determined when charted against the overall social variation between speakers. In other words, the language of a speech community turns out to be more regular and predictable than the speech of an individual. Thus the absolute use of an isolated linguistic variable tells us nothing: correlations are found only by looking at the relative frequency of use of linguistic variables across a speech community. What one finds is that if speakers are rank-ordered both in terms of their use of selected linguistic variables and also in terms of their social class, then these rank-orders coincide (apart from various 'cross-over phenomena' connected mainly with particular linguistic sensitivity in the lower middle class).

Second: some linguistic variables are entirely ambiguous as indices either of the social class of speakers or of the formality of the conversational context. That is, some linguistic items serve both as demographic and as stylistic markers. One can therefore draw no inferences from a speaker's language about his social class, unless one also knows whether the social, conversational context was formal or informal. In Labov's words, one cannot tell a casual salesman from a careful pipefitter.

Labov distinguishes, in fact, between different types of linguistic item. An indicator correlates with some demographic characteristic of the speaker, say, social class; but does not vary in the speech of the individual. A marker is evidence of, say, social class, but also varies stylistically according to the formality of the situation. Empirically, both types of item are found.

In more recent work. Labov (1973) has studied the language of pre-adolescent Negro gangs in New York. He has found the boys' language to be a sensitive index of how closely the boys are involved in the street culture. The language of core members of the gangs (discovered independently by sociometric techniques) turns out to be different in describable ways from the language of peripheral members ('lames'). But the important point is that the language is not different on the surface, for example, in the use of particular words or isolated items. There is, in fact, no absolute difference between the language of the groups. That is, for any feature of Black English Vernacular which core members use, lames will also be found to use it. What is different is the whole system. Labov's finding is that the core members' language is more consistent in its use of the rules of Black English Vernacluar. Thus, they might delete the copula in 100 per cent of cases (in sentences like: He my brother) where lames will follow the rules only some of the time. The index of membership of street culture is therefore provided only by the overall consistency of the whole grammatical system.

> "... the consistency of certain grammatical rules is a fine-grained index of membership in the street culture.
> ... It must be remembered that all of these boys appear to speak BE (Black English) vernacular at first hearing.
> ... All groups use the same linguistic variables and the differences in the system are internal variations in the organisation of similar rules: differential weightings of variable constraints". (Labov, 1973:81,88).

Labov also points out the severe practical and theoretical problem that the core members of the sub-culture, whose language is most consistent, are precisely those who are most inaccessible to researchers. It is the lames, whose knowledge of the sub-culture is inadequate, who are most likely to be informants for educational researchers.

The main warning from such work is that, if language is to be used as evidence of social structure and processes, then the language must be examined as a system, not as isolated items. Relationships are found between linguistic systems and sociological categories. Therefore, the language data must be studied for its own linguistic, systemic organisation. In general, then, the relation between language and educational statements is much less direct and more abstract than many educational studies imply.

Sociolinguistic studies of the relationship between language and context also recognise the importance of speakers' attitudes and perceptions of language, as an intervening link in the chain between language forms and social processes. Much recent sociolinguistic work has concentrated not only on features of how language is used in context, but on the *social values* which speakers attach to language. (For American studies of language in education which emphasise this, see especially Cazden *et al*, 1972). Labov (1969) has suggested that a speech community is defined by speakers who hold the same linguistic attitudes and stereotypes. The phonological variables which are indices of a speaker's social class are often raised to the status of stereotyped and stigmatised features for speakers' themselves. But there is a complex relation between speakers' *perceptions* of other speakers' speech and actual behaviour. Labov's general finding is that people *perceive in categorical terms* what is, in fact, *variable* speech behaviour. Thus, a speaker who simplifies word-final consonant clusters in some linguistic environments some of the time may be *perceived* as doing it all the time, if the frequency of consonant cluster simplification rises above a critical perceptual threshold.

There has been little work on the institutionalised attitudes to language transmitted by Colleges of Education and schools. But what little there has been suggests that schools and colleges often take highly prescriptive attitudes to pupils' language. (See Milroy and Milroy, 1975, for data on Belfast, and Macaulay and Trevelyan, 1973, for data on Glasgow).

I now move onto discussing one particular level of linguistic organisation whose study cannot really be avoided by educational researchers.

4. CLASSROOM LANGUAGE AS A DISCOURSE SYSTEM

Much classroom research is actually concerned with studying classroom dialogue: in terms of teachers' questioning strategies, pupils' responses to teachers' questions, the kinds of exploratory discussion amongst groups of pupils working on tasks. If not immediately concerned with studying the dialogue itself, much work nevertheless draws its data from such sources. And much other work admits that it ought to be concerned with teacher-pupil interaction, or that study of teacher-pupil interaction would be required to provide empirical substance to theoretical points. (e.g. see Keddie, 1971:156, and many other examples).

The organisation of classroom discourse

Most studies of the classroom are, then inevitably concerned with how teachers and pupils interact; that is, with aspects of teacher-pupil dialogue, discussion, conversation or discourse. There are now many studies which demonstrate in detail that discourse (multi-party conversation) is a complex linguistic system: a highly patterned, rule-governed activity describable in terms of several interrelated ranks of description. That is, discourse has its own organisation. Major studies of how spoken interactive discourse 'works' are by Sacks (e.g. 1972) and his colleagues in the USA; and by Sinclair and his colleagues in Britain (Sinclair and Coulthard, 1975) - this latter work is on teacher-pupil discourse amongst other discourse types. Many quite specific proposals have now been made concerning how spoken discourse can be analysed structurally and systemically, in terms of the linguistic 'mechanisms' which make it 'work'. Much work has been done for example on minimal interactive units, at the rank of question-answer pairs. (Cf Sinclair and Coulthard, 1975, on exchanges: Sacks, 1972, on adjacency pairs: Goffman, 1971, on interchanges). Often classroom researchers (e.g. Barnes, 1969) have worked with an intuitive notion of such discourse units. Larger discourse units are also discoverable. Schegloff and Sacks (1973) suggest ways in which whole con conversations are structured. The most specific suggestions have come from work in Birmingham (Sinclair and Coulhard, 1975) which proposes several hierarchically ordered ranks of structural units into which discourse can be analysed on formal grounds. The details of such analyses are not important here. What is important is that any attempt to relate isolated linguistic units to non-linguistic categories completely bypasses these levels of conversational organisation.

The general point is as follows. Language is a relatively autonomous system - more accurately a system of systems. Within language, discourse or conversation constitutes a relatively autonomous level of linguistic organisation. That is, it is possible to formulate discourse structures (including two-place structures such as question-answer) and systems of choices (if A says x, then B will say y1 or y2, and will not say z). In other words, it is possible to begin to specify how conversation works. It is also possible to specify how different discourse types work, e.g. how teacher-pupil dialogue typically differs from, say a doctor-patient consultation. Treating teacher-pupil interaction as a linguistic discourse system means studying the formally recognisable linguistic 'mechanisms' by which the talk is organised and made coherent. That is, studying: how topics are introduced and sustained and closed; how one speaker's talk is related to another's. Many formally identifiable markers of discourse cohesion have now been identified, including lexical repetition, paralellism of syntax and intonation, anaphora, ellipsis, sentence continuations, etc. (Stubbs and Burton, to appear, is an introductory discussion of these topics. Halliday and Hasan, 1976, is a very detailed discussion).

If language data are selected from observations or recordings of classroom language, these data are necessarily abstracted from their context in discourse structure. Any principled study of such data must therefore take account of their own organisation.

The transmission of educational knowledge

But there is another powerful reason why educational researchers should be interested in such linguistic organisation. In ignoring it they are in fact ignoring a vast resource, much deeper and richer than surface linguistic items. Studying teacher-pupil interaction as a linguistic discourse system can provide educationally interesting insights which are not available to studies which bypass this organisation. One example is as follows.

Much recent educational research has been concerned with the sociology of knowledge: with how educational knowledge is socially defined, selected and made available to pupils. Much of this work raises "predominantly conceptual issues" (Young 1971:2) and provides no detailed specification of how knowledge is actually transmitted from teachers to pupils. There is much theorizing, but few case studies. (Case studies based discursively on classroom interaction include Keddie, 1971, Furlong, 1976). Studies in this area can usefully be done at different levels: one can study, for example, how the curriculum defines knowledge (e.g. Hamilton, 1976).

But description of how teacher-pupil discourse is sequentially organised could also provide much information for the educationalist interested in how teachers control how knowledge is presented to pupils. By studying discourse sequencing, one can study in empirical detail: how teachers select bits of knowledge to present to pupils; how they break up topics and order their presentation; how these discrete items of knowledge are linked; how distinct topics are introduced and terminated; how pupils' responses to questions are evaluated; how pupils are made to reformulate their contributions; how bits of knowledge are paced and allowed to emerge when the teacher considers it appropriate. I cannot see how such topics _could_ be studied, other than in an _ad hoc_ way, by looking at isolated utterances or features of language. But by studying the overall structure of the teacher-pupil interaction as a discourse system, these topics are _inevitably_ studied.

Studying teacher-pupil talk as a discourse system would, for example, provide one way of studying how classroom knowledge is 'framed' (Bernstein, 1971b). Only by studying how teachers control the classroom discourse itself, can one then study how this also controls the transmission of educational knowledge. Only preliminary studies have so far been done on how the concept of framing may be grounded in sound recordings of classroom language (Walker and Adelman, 1972, 1976, Stubbs 1976b, chapter 7).

Such topics of study are simply not available to researchers who treat language at the level of isolated surface features, ignoring its abstract, underlying, sequential and hierarchical organisation.

5. POTS AND KETTLES

It often happens that educationalists, and sociologists in general, accuse linguists of ignoring the contexts in which language is used. "Contexts" here generally mean social and cultural contexts. Such accusations are often true. (The fact that they are also no news to linguists, who are quite aware of the idealisations they make, and have strong reasons for making them, is often ignored by critics, but this is another matter which does not concern us here). But in this paper, I am accusing educationalists, in their turn, of ignoring contexts. By "contexts", _I_ mean levels of linguistic organisation in the data: one such level is discourse sequence.

I am not claiming that, by taking account of linguistic organisation, everything can be explained. This would clearly be factually wrong. Reference to the social context is often necessary in order to account for how language is used. Nor am I arguing that the social functions of language ought to be related explicitly to the linguistic forms that realise them: the problem of the relationship between language forms and functions is a quite separate issue which I have not even mentioned.[4] What I am arguing is that it is often tempting to proceed directly from language to social context, bypassing levels of organisation in the middle. As a principle, and even if it does not always work, one ought to try and account for linguistic data on its own terms before turning to sociolinguistic, sociological or psychological explanations. The argument is not that one ought to study language as a system _instead of_ studying the social context. But that one ought to study language as a system _before_ trying to relate it to the social context.

Linguists and educationalists both accuse each other of being reductionist.

6. CONCLUSION

I have discussed some theoretical problems in relating linguistic data to social-psychological statements in a principled way. There are various ways of thinking about these problems.

First, it is the problem of how the researcher can place some control on his intuitions. What is to stop the researcher picking out isolated linguistic items or classes of items and taking these as 'evidence' of democratic social control, closed learning sequences, or whatever? Second, it is the problem of idealisation. Descriptions of phenomena have to simplify and idealize: otherwise they would merely reproduce the features of the original under study, rather than make hypotheses about what it is significant to describe. Third, therefore, it is the problem of how to avoid reductionist statements. Clearly, descriptions of language which ignore its social context of use and social meanings are severely reductionist and unlikely to be of any interest to the educationalist. But in concentrating on the use of language in context, one must not ignore the systematic complexity of the language system itself, by reducing the linguistic data to a string of isolated features.

As a whole, studies of language in education have attempted to relate a mixed collection of surface linguistic features to a mixed collection of deep social-psychological categories. This is a prima facie indication that such studies are unprincipled in that they treat the linguistic data as a mere resource, as though it had no organisation of its own.

I suggest finally that classroom researchers are inevitably concerned with using teacher-pupil dialogue as a source of data, and that they should therefore be concerned with how the dialogue works: i.e. with teacher-pupil discourse as a linguistic system in its own right. To ignore teacher-pupil talk as a discourse system is, in any case, to throw out the baby with the bathwater, and to ignore a much richer source of data than isolated and surface linguistic items.

I find it difficult to see what direct relationship there could possibly be between isolated, surface features of language and learning and teaching strategies. For example, the cognitive complexity of an argument will never be computed merely by calculating the number of subordinate clauses it contains, the mean length of its sentences, the complexity of its noun groups, or the rarity of its adjectives. Nor can a teaching style ever be defined merely in terms of the number of closed questions the teacher asks or the number of pupil initiations. The relationship between language and educational processes is much less direct than this, and seems to depend crucially on a notion of the structure of the language as a system of communication. This is a much deeper, more powerful and more interesting concept of language.

NOTES

1. I have also discussed this question, more briefly, in Stubbs, 1976b, chapter 8, where I attempt to set out various criteria of adequacy of studies of language in education.

2. I use systemic in this paper in its technical linguistic sense, as the adjective corresponding to a linguistic system. A system is a closed set of choices or options in a language which are mutually defining. Thus, English has a number system comprising two terms, singular and plural. Old English had a three-term system, comprising singular, dual and plural. Clearly, plural means something different in two-term and three-term systems. Most linguistic systems are, of course, much more complex than this. Languages are then regarded as systems of systems. Systems may be identified at different levels of description. Linguistics traditionally uses the term level to refer to: phonology, morphology, syntax, semantics. But usage here is variable.

   I use systematic in its commonsense meaning.

3. Labov (1966) is now out of print, but most of the material has been revised and included in Labov (1972).

4. The introduction to Davies, ed., (1977) the paper by Davies himself, and also the final report by Criper and Davies, provide linguists views on the elementary nature of our knowledge of form-function relationships. These two papers also provide linguists' views on the state of the art of research into language in

education, much broader ranging than my discussion here, but, I think, complementary to it.

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THE PROBLEM OF GREY HAIR

Paul Atkinson
University College Cardiff

1. INTRODUCTION: A QUESTION OF ANSWERS

It is commonplace to observe that a great deal of teaching is accomplished by and through talk, and the analysis of classroom talk plays a major and increasing part in contemporary research on the process of schooling.[1] The sociology of education has benefited immeasurably from the development of such approaches. At the same time, research in the field of medicine has likewise been stimulated by perspectives on the 'ethnography of talk'.[2] This paper draws on both research strands, and the substantive content of the paper straddles the fields of medicine and education. It is derived from an ethnographic investigation of clinical (bedside) teaching in a medical school.[3] Although it therefore refers to medical students and their teachers, the paper is intended to relate to talk in a broader range of educational settings.

As Stubbs has pointed out, much research on classroom talk has failed to examine the nature of talk itself as an orderly social accomplishment:

> Studies of classroom interaction have typically ignored the intrinsic linguistic organisation of classroom talk as a type of discourse in its own right.[4]

In many studies based on 'interaction analysis', diverse aspects of talk have been treated, out of their linguistic context, as indicators of social roles and teaching processes.[5] The selection of linguistic items has often paid little regard to the nature of discourse itself.

In contrast to such unprincipled and haphazard approaches to classroom talk, Sinclair and Coulthard and Stubbs have emphasised the need to examine the organisation of discourse in a number of social settings - including the classroom.[6] They have shown that it is possible to describe regularly recurring features of classroom talk in terms of a limited number of hierarchically ordered units - *lesson*, *transaction*, *sequence*, *exchange*, *move*, *act*. Classroom talk is therefore described in terms of a number of sequentially ordered slots which may be 'filled' or realised in a number of different ways. Sinclair and Coulthard and Stubbs therefore provide a mechanism for the recognition of discourse structure underlying strings of teachers' and pupils' utterances, and thus of identifying linguistic patterning beyond the level of the individual utterance.

Sinclair and Coulthard recognise a commonly recurring string of classroom talk consisting of *Teacher-elicitation*, *Pupil response*, and *Teacher evaluation*. Such a sequence can be illustrated from the following extract taken from my own notes on clinical teaching.

Doctor:	Is it an amino acid?	*elicit*
Student:	Yes.	*response*
Doctor:	Yes -	*evaluation*
	how many are there?	*elicit*
Student:	Seven.	*response*
Doctor:	There were ten in my day.	*correction*

Exchanges of this sort are very common in teaching talk, and lengthier and more complex patterns if interaction are built up from such minimal exchanges.[6] Rather similar patterns of discourse have been identified for doctor-patient interviews by Ashby and Coulthard.[7]

Obviously, teachers' elicitations often take the form of 'questions' (although it must be noted that the categories identified are functional, and are not tied to any single form of syntactic realisation). However, we must note that a teacher's question is usually of a rather peculiar sort. For the most part they could be described as 'pseudo-questions'.[8] That is, they are not based on the speaker's ignorance and search for knowledge, but rather are occasions for the display and evaluation of the respondent's knowledge or ignorance. The teacher will normally be satisfied that he or she already has the correct answer in mind: students' ability, attention and information-state are evaluated by the teacher on the basis of the response given.[9]

From the perspective of discourse structure, the 'slots' of Evaluation - Response - Evaluation and so on are straightforward enough. The content of their realisations (or exponents) does not normally affect their identification. 'Correct' and 'incorrect' responses are equivalent (insofar as they are both responses), although they may call forth different exchanges subsequently; similarly, praise or criticism on the part of the teacher are both evaluations and therefore equivalent in the context of the discourse structure. From the perspectives of the parties to the exchanges, on the other hand, what is to count as a correct or appropriate 'filler' for the various slots - particularly students' responses - is far from straightforward.

For the students in particular, it is not always a simple matter to fill a 'response' with an answer that will pass muster and earn an approving evaluation. Teachers' questions are indexical; they do not spell out precisely and 'in so many words' how they are to be answered. Mehan suggests

> Because teacher's expressions are essentially incomplete, all the information the child needs to follow the teacher's instruction is not found in the instruction itself.[10]

Students must, therefore, engage in a variety of interpretive tasks in their attempts to provide acceptable responses. (Of course, students are not constrained to do so: they may choose to offer answers of a different sort - to be funny, rude or cheeky, for instance, or to admit ignorance. Bringing off responses in this way also requires a well developed competence on the part of the student).

One issue of interpretive problems resides in the student's selection of an appropriate response from a range of alternatives. As Mehan puts it:

> The child's problem ... is similar to what Schegloff (1971) describes as the member's problem in formulating location. Schegloff notes that even though places, objects or activities can be adequately and correctly described by one of a set of terms, on a particular occasion there are some formulations that are more appropriate than others.[11]

Even apparently straightforward 'factual' questions require some interpretive competence on the part of the students. The status of a question as a matter of unequivocal 'fact' needs to be identified as just that before it can be treated in the correct manner. For example, in the teaching of surgery, students are regularly asked 'How long should a drain be left in?' (Referring to a length of tubing left in a surgical wound to drain off blood, fluid, etc.) Inexperienced students can often be heard misinterpreting such a question and answering it as if it required a 'straightforward', factual answer - and they offer such replies as 'thirty-six hours', 'four days' and so on - all of which are incorrect answers. The correct response is, 'Until it stops draining', or 'Until it is no longer needed', or something to that effect.

Hammersley has documented such interpretive work in school lessons, and he notes that:

> Being able to produce 'the answer' to the teacher's question requires knowledge of the conventions governing a particular kind of teaching and the ability to 'read the signs' in the teacher's structuring of the lesson. Together these are both a necessary and a sufficient condition of answering the question.[12]

The flavour of many teacher-student exchanges thus becomes one of 'hide-and-seek', in which the students seek out the precise formulation which the teacher has in mind as constituting the correct student response. In the course of such an exchange, teachers may provide 'clues' to inform the students' interpretations. This can also be illustrated from my own observations of clinical teaching:

Doctor: What are the signs of infection?
Student: The wound being red and swollen.
Doctor: Those are the local signs.
Student: There's a pyrexia.
Doctor: Pyrexia - tachycardia ...

Here the teaching doctor offers a clue in the use of 'local' (with heavy stress on the first syllable) to point the student towards the production of 'general' or 'systemic' signs of infection, by providing one aspect of a frame of reference within which the student can locate further response.

In answering teachers' elicitations, then, students normally have to search for the assumptions that underlie them. They need to search for and 'spot' the possible relevancies which inform the talk. Hammersley again comments on this:

> So the pupils can, and must, assume that they only have to search their world-within-reach for an adequate method of answering the question. They can assume, at least as a working hypothesis, that everything they need to know to answer the question has been provided. The pupil must search his surroundings and his knowledge for possible methods of answering the question. If he finds one, whatever its relevance or level of adequacy or validity in his eyes, what it produces could be the answer the teacher is looking for.[13]

Hammersley also notes that students' attempts to discover the relevance of questions can often lead them astray. If they mis-read the context, then their replies may come off as totally off-beam, irrelevant, aimless and stupid.

2. SIGNS AND SYMPTOMS

As I have already indicated, medical students are no different from other students or school pupils when faced with the problem of answering their teachers' questions. A very great deal of face-to-face teaching in the medical school consists of question-and-answer routines of some sort, during which students knowledge and expertise is monitored and evaluated by their teachers. In the course of their clinical work on the hospital wards, the students face particularly pressing problems in producing displays of competence and ability. Through the medium of bedside teaching, students learn how to do things with 'real' patients. They have to learn the basic skills of clinical medicine - 'taking a history' from a patient, and performing a physical examination. They are routinely required to derive information from or about a patient in order to respond to a clinician's questions or instructions.

In such clinical work, students are required to assemble a profile of clinical 'facts' about the patient in question, as a basis for the formulation of differential diagnoses. In doing so, students learn to manage two sorts of clinical information - which are commonly referred to as 'signs' and 'symptoms'. Black summarises how members of the medical profession distinguish between the two:

> Symptoms are those things which a patient notices for himself, and of which he complains (to use the technical term) either spontaneously or in response to questions. Signs are those things which the doctor finds on examination.[14]

The distinction between signs and symptoms is often couched in terms of the difference between 'objective' and 'subjective' findings. But the commonsense notion of 'objectivity' in this context should not blind us to the fact that the doctors observations (or the medical student's) are themselves socially organised practices. Members of the medical profession have to learn how to perceive such things. The clinical 'signs' which appear to the practitioner as self-evidently 'objective' have not been 'seen' and reported in the same way by doctors and researchers in different historical periods[15]: such sense-data and their assemblage into a diagnostic 'picture' are culture specific.[16]

Medical students have to learn to perceive a wide range of phenomena - to see complexions, to hear heart sounds, to feel lumps and so on. That is, they do not simply learn 'how to do it'; they have to learn what it is they are supposed to experience. Further, while students may agree among themselves, and agree with their clinical teachers on what they see, hear or feel, they may nevertheless find themselves incompetent in selecting what features might count as relevant clinical signs. It is clearly not the case that bedside observation would normally involve the millimetre-by-millimetre scrutiny of every aspect of the patient's appearance. Competent observation at the bedside implies that the observer should single out specific features, treat them as worthy of note, and to try to locate them within a frame of reference drawn from a repertoire of possible diagnoses.

In formulating their descriptions of clinical signs observed in their patients, then, medical students are called upon to notice what are taken to be medically relevant aspects of the patients physical state. In doing so students may find themselves faced with the complex task of interpretive reasoning. As students they have to work at their teachers' questions in order to produce appropriate answers. If the teachers' elicitations concern physical signs, then they will also have to work at 'noticing' the appropriate description of the patient's body. In such contexts, the elementary discourse structure of Elicitation - Response - Evaluation is constructed by the participants through a great deal of judgmental work. In the next section of the paper I turn to consider just such bedside teaching encounters. I shall examine one particular teacher-student exchange which exemplifies a student's search for appropriate clinical observation in response to an indexical instruction from a teaching clinician.

3. THE PROBLEM OF THE GREY HAIR

So far I have argued that medical students are routinely confronted with teachers' elicitations which require that they competently 'notice' something about the patient. To paraphrase Hammersley's observations on school pupils, they then have to search for their 'world-within-reach' for an adequate response. If called upon to make a clinical observation, then students have to try to recognise possibly relevant phenomena. Further, they have to identify and select phenomena which actually correspond to the teacher's relevancies in order to provide a 'correct' observation.

I shall now try to illustrate and exemplify some of these preliminary comments on bedside teaching talk by reference to a fragment of teacher-student interaction. It must be emphasised that this fragment is taken from notes, and is not derived from a tape-recording transcript. I can vouch that it is as near verbatim as such notes can be. Nevertheless, such notes cannot capture the details of natural talk - such features as hesitation phenomena, intonation and so on. The data, therefore, are not ideal, but I believe them to be sufficient for the purpose of illustrating my theme.

The short extract of interaction that I want to present was noted in the course of a ward round on a surgical unit. The consultant was taking a small group of students from bed to bed, pausing for a few minutes round each one. The students in question were in their first year of clinical studies, and in the second term of that year. Whilst not totally inexperienced in the routines of clinical instruction, the students were still very much novices in the accomplishment of clinical work. The patients all came 'fresh' to the students; they had never seen them before, and the students had no prior knowledge of the patients' condition (beyond the reasonable assumption that they were being treated as surgical cases).

In the course of this teaching round, the consultant stopped at the foot of one patient's bed. When the students and I had grouped outselves round him, the consultant turned to one of the student and, without preamble, asked him:

> What do you observe about this patient?

Before looking at the student's answer and the exchange, I should like to consider this elicitation briefly and in isolation (though I do not wish to imply that utterances should, in principle, be treated out of the context of the discourse as a whole). It shows, perhaps in an extreme form, just how indexical teachers' questions can be: they do not indicate how they are to be answered, nor how students should set about searching for answers.

In some ways this particular question seems very 'open-ended', and it is reminiscent of an illustrative exercise used by Popper.[17] He reports that he would, in the course of his teaching, tell his students to 'observe' - without specifying what they should observe, or how they should set about complying with his instructions. The point of the illustration for Popper is to indicate the problem of inductive reasoning, devoid of some prior theoretical framework to guide the observer and specify the nature of the phenomena to be observed. Popper's students are, of course, supposed to react by being bemused by the apparently unanswerable instruction.

To some extent the consultant's elicitation is similar to Popper's, in that it offers very few instructions or clues as to how it might be tackled. Yet students do have a greater chance of answering it, on the face of it at least. To begin with it does specify a particular field of observation: the students were told to scrutinise the 'patient' - focussing their attention on one individual within their world of immediate experience.

Yet the observation and description of an individual remains a very broadly defined task. It is clear that in the normal run of things there are many possible characterizations that can be offered as 'correct' descriptions of a given person. Thus candidate description could be formulated in terms of a number of social categories. These categories consist of a number of terms, and a correct identification would consist of the selection of the appropriate term for each possible category. For instance, there is the category *sex*, with the with the constrasting terms *male* and *female*; similarly, for *age* we can note a more complex (and less well defined) collection of terms, including *baby*, *infant*, *toddler*, *child*, *teenager*, *middle-aged*, *elderly*, *old* (person) and so on. Appropriate terms from such collections can therefore be combined to formulate a social 'profile' - such as 'an elderly middle-class man', 'a young white woman' (this being precisely what sociologists themselves normally do in compiling 'face-sheet data' on their subjects). Such formulations are elementary and common ways in which members' mutual typifications are assembled[18]; as such they are perfectly understandable and rational ways of describing any given person

The social classification that I have outlined are examples of what Sacks calls Member Categorizations.[19] And as I have already touched on, such categorizations can be arranged in groups to comprise Membership Categorization Devices (MCD's). By MCD's is meant:

> Any collection of membership categories, containing at least one category, which may be applied to some population containing at least a member, so as to provide, by the rules of application, for the pairing of at least a population member and a categorization device member.[20]

Members of population can always be described by reference to some MCD; in addition, more than one MCD will always be available as a possible description.

If we return to the consultant's question which first led to this discussion, then we can note that the student could, in principle, respond by employing one or more of such readily available categorization devices. Assuming that the student used the rules of application competently, he could come up with a 'correct' observation or description of the person in question. As a matter of fact, such a categorization, whilst possible and understandable as a candidate description, would usually come off as extremely 'uninteresting' or 'trivial' in context. It might stand as an opening gambit in a clinical case-presentation, but its status as 'face-sheet data' would have to tie it closely to more 'interesting' observations immediately afterwards. Such immediately available descriptions as 'a young white male' (or whatever) would hardly suggest a display of skilled clinical observation on the part of the student. Nevertheless, we shall need to bear in mind that such categorizations, and MCD's are normally to hand. For the moment we shall suspend judgment on how and whether they might be turned to good account in doing 'noticing' or 'observing' and so producing more 'newsworthy' descriptions.

We can note at this point that the consultant used one member-categorization; by referring to the other person present as a 'patient'. What does such a description do in this context? Firstly, a member's knowledge of the teaching-hospital as an organization would furnish them with this background knowledge: by the time that students see them, the 'patients' have already been through at least some of the various steps in the admission process. Their 'patienthood' has typically been established as a medical 'fact'. Indeed, it is such prior medical work on the patient that provides the clinical teacher with many of the resources used in managing the teaching encounter, posing questions and instructions, and evaluating the students' performance. In describing the 'patient' as such, and by virtue of this available knowledge, the consultant's question does provide some indication of what sort of an observation/description is required. The teacher's question can therefore be located within a specific framework of relevance - it can be heard as requiring a characterization that will provide for the man-in-the-bed's 'patienthood'.

Now it seems to me that 'patienthood' can be located by reference to a number of MCD's. I take it that it is not difficult to see the following as a relevant collection of terms: sick/healthy/convalescent or normal/disabled. Such terms provide everyday descriptions of members state of health. At the same time, 'patient' can also be found in the following collection: patient/doctor/nurse/medical student/ physiotherapist ..; such terms would appear to be linked under the possible heading of 'parties to medical encounters. The point to note at this stage is that 'patient' can be found unproblematically in the latter collection, and 'patienthood' can be located also in relation to the former: further, within each collection, the terms are normally contrastive in use. It would, therefore, seem to be a reasonable strategy for a medical student to seek a formulation which provided for the contrast _sick/healthy_ (or _well_, _unwell_). Such a response could be heard as satisfying the requirement that a medically relevant description should be preferred. It could be heard as at least a candidate account for the person's status as 'patient'.

At this point, let us turn to the student's actual reply:

> He's got grey hair.

How can this formulation be heard as a candidate medical description? It must be noted that the patient did in fact have grey hair - a very full head of grey hair. Although his precise chronological age was never revealed, he gave every indication of being a youngish man, in his thirties. In line with my previous comments, it appears that we should treat the student's response as a candidate formulation of 'abnormality'.

Now, member categorizations imply Category Bounded Activities (CBA's).[21] They imply a range of doings that commonsensically can be seen as naturally tied to particular categories of member. CBA's provide resources for reading off what persons may be typically expected to do - and hence may be used in 'filling in' members' readings of accounts, justifications, accusations and so on.[22] In addition to activities, we might note that we are normally possessed of a stock of knowledge about members' _attributes_ - we know what sort of a person we are dealing with. Thus CBA's should be taken to include typical acts and attributes. MCD's and CBA's provide activities and characteristics which commonsensically 'go together', tied to particular categories of member, and seen as their distinctive properties. It is apparent, therefore, that we can routinely produce descriptions of 'normal', 'typical' and 'predictable' states of affairs by selecting and linking appropriate MCD's with CBA's. Yet we can note once more that such accounts tend not to be 'newsworthy'.[23] In the medical context, certainly, 'news' is usually produced by reference to features which disrupt such 'normal' states of affairs. (Such features and disruptions are also treated as displaying patterns of 'normality', however.)[24] We might assume therefore that one available method for assembling a candidate 'medical' description would lie in coupling available membership categorizations with atypical activities or attributes - possibly such as are routinely linked with contrasting members of the MCD collection.

I suggest that the student's suggestion can be heard in this way. If we consider the MCD age, then it appears to contain at least the following terms in its collection: baby, child, teenager, adolescent, young-man/woman, middle-aged man/woman, old man/woman. This is by no means an exhaustive listing - and for certain purposes, finer graduations of 'time-of-life' categories may be employed. However, the use of such an MCD often implies the invocation of a number of CBA's. For instance, the activity 'crying' is normally treated as bound to the category baby. It is a normal and unremarkable thing that babies cry. It may be remarkable when older persons cry - and this may be remarked on by the invocation of the normal category, by calling somebody a 'cry baby', or a 'big baby'.[25] Similarly, the notion of 'growing old gracefully' is one available method for drawing attention of the appropriate linkage of age-relevant categories and their CBA's. Failure to grow old gracefully can be rendered an observable and accountable state of affairs if members draw attention to inappropriate linkages (e.g., 'mutton dressed as lamb', 'he's in his second childhood', 'the oldest teenager in the business', and so on). Of course, such unusual and noteworthy affairs are not always treated as blameworthy - c.f. the connotations of 'an old head on young shoulders'.

Our medical student's response has not been forgotten - and it can be heard in the light of the preceding observations. It is not difficult to hear 'he's got grey hair' as related to the MCD age, where having grey hair is understood as a category-bound attribute of advanced age - or at least of middle age (cf. the use of 'greybeard', 'when I am old and grey', 'silver threads among the gold', as well as the market for such products as 'Grecian 2000', for the preservation of youthful looks). If the person in question appears otherwise as a young(ish) man, then 'he's got grey hair' can be heard as a candidate account of abnormality by reference to a discrepant co-occurrence of membership category and category-bound activity. Figure 1 provides a scheme to generate such an account.

MCD	MC	CBA	
Age	Young	Pigmented hair	
	Old	Grey hair	'Normal'
	Young	Grey hair	'Abnormal'
	Old	Pigmented hair	?

We can note in passing that the scheme is not symmetrical: the retention of hair colour is not normally treated in the same way as its loss. Whilst we quite naturally speak of people going prematurely grey, the loss of hair pigment is not always treated as an inescapable comcomitant of old age. Of course it may be a noticeable feature; for instance it may be adduced as evidence that 'he/she has worn well', or may be treated as grounds for suspicion that art has triumphed over nature (though 'only her hairdresser can tell'). However, such methods do provide a machinery for hearing the student's reply in the way suggested.

Now it may be objected that having grey hair is not usually a very 'newsworthy' medical fact. To do so is to miss the point; given that such a response notes an apparent MC/CBA discrepancy, it may appear to provide a reasonable candidate description. Nevertheless, it was apparent that the teaching consultant was not impressed by the student's reply. He commented:

> So have I.

This reply prompted laughter from the other students, and it came off as a somewhat sarcastic come-back at the student (it was uttered in a very 'dry' manner). It was apparent that the student's response was evaluated as extremely 'off beam' - and it is worth recalling Hammersley's observation referred to earlier: faced with indexical instructions, students must cast about for the relevant frame of reference, and should they light upon the 'wrong' one, then the resulting answer may look very odd indeed.

There is, I think, rather more to say about the consultant's remark than to note simply that it evaluated the student's response as inappropriate. I have suggested that doctor and patient can be heard as terms in one possible collection relating to the accomplishment of medical work. They are normally contrastive in use. The sick doctor offends such normal use (cf. the force of 'physician heal thyself'). I should like to say that the 'sarcasm' of the doctor can be understood in this way. In replying 'so have I', the doctor invokes the category 'doctor', in this self-identification, implying that *doctor-CBA* cannot commonsensically stand as *patient-CBA*, unless we have prior warning that we are dealing with an unusual state of affairs (such as a sick doctor). In other words, the doctor picks up the MCD *parties to a medical encounter*, rather than the MCD *age*; thus 'grey hair' is rejected.

Rather similar comments apply to a famous example from sociolinguistics:

> 'What's your name, boy?' the policeman asked ...
> 'Dr. Poussaint. I'm a physician ...'
> 'What's your first name, boy? ...'
> 'Alvin ...'[26]

In this example, a black physician is humiliated by the policeman by being treated in what appears to him an inappropriate manner. The interaction revolves around the invocation of alternative MCD's. The policeman is clearly operating with *race*, whereas Dr. Poussaint attempts to redefine the situation by invoking occupation.

The student tried to justify himself by making clear the grounds of his formulation .

> No - I meant he was a young man with grey hair.

Here the student seeks to reaffirm the rationality of the response. The MCD of *age* was articulated more explicitly, and in contrasting 'young' with 'grey hair', he provides a clear display of the methodic assembly of 'abnormality'. In fact, this appeared to cut no ice with the consultant, who went on to seek other responses from the rest of the students. The first student's response was not explored for its possible relevance, and the consultant made no further attempt to discover what the student had in mind.[27] I shall not go in any detail into the ensuing discourse, except to note that the patient was finally established as having a torsion of the testicle - and the students were expected to notice that he was in pain. (I would not press the point in connection with the present example, but the observation of discomfort in patients is sometimes passed over by medical students. It is something which can appear so 'obvious' as to require no explicit reference, and they can flounder in search of more newsworthy phenomena).

I should like to offer one further comment on the consultant's reply 'so have I'. At the time, this comment came off as particularly 'dry' and humourous, as well as being a particularly effective criticism of the student's response. As I have suggested, the appositeness of the consultant's utterance depends upon the use of the MCD's underlying the discourse: he seems to be invoking the normal contrast implied between doctor and patient. There is, after all, no logical reason why some attribute of a (presumably healthy doctor should not also be taken as a sign of a patient's illness. Both, for instance, could be breathing heavily - the doctor because he has been hurrying up the stairs to the ward, the patient because he has bronchitis. But the plausibility of the formulation trades on the commonsense distinction between the 'ascriber' on the one hand, and the 'client' or 'victim' on the other.[28] Hence the contravention or reversal of this assumption suggests either the innappropriateness of the ascription, or questions the right of the ascriber to do the ascription at all. In the example we are considering, the retort 'so have you' would, of course, prove an even stronger variant of this ploy In general the tactic is remeniscent of the utterance 'It takes one to know one', used as a device in capping a ritual insult.[28] It turns the ascription back on the ascriber - leaving him either implicitly insulting himself or withdrawing the original insult. In our example, the consultant draws the ascription on himself - putting the student in a very similar quandary (either to imply that there is something wrong with his teacher, or emphasising that he sees him as 'old'). As we have seen, the student attempts to retrieve the situation by explicating the grounds of his original inference; but it is really too late, and the student's position has already been lost.

In the fragment that I have just discussed, the student's offering of a description formulation foundered: even after his self-justificatory reaffirmation of his methodic procedure, it was dismissed by the clinician. I have, however, discussed it as an illustration of two closely related phenomena; that is, how students must work at the interpretation of teachers' elicitations, and how medical workers must work at the interpretation and methodic assembly of clinical 'facts'. For medical students, the two sorts of judgmental work come together to inform their displays of 'acumen', 'ability', 'being observant' and so on. I am not suggesting that practical reasoning of this sort always and invariably informs such work in this way. Nevertheless it stands as an example of the sort of work which doctors and medical students need to engage in if they are to generate a shared world of observable and reportable clinical phenomena.

What I have attempted to outline here is just one aspect of clinical reasoning which may furnish a possible method for the production of a candidate 'diagnosis'. The method that I have been proposing could be termed a 'discrepancy rule'. The competent use of such a rule would reside in the production of formulations which contrast 'normal' states of affairs with noticeable features of 'deviation' from the normality which was itself formulated in the description.

What I mean by this is something closely akin to what Smith calls a 'contrast structure'.[29] Smith finds such structures in the production of 'factual accounts' in the ascription of 'mental illness'. She examines an account offered by a student on how a girl, 'K', (shades of Kafka!) is described as having become deranged and having behaved oddly. Smith demonstrates how the student formulates descriptions of 'K's behaviour, linked with implicit ways of finding that behaviour odd and anomalous. Smith singles out the following examples from the account of 'K' and her behaviour:

> She would take baths religiously every night and pin up her hair, but she would leave the bath dirty.
>
> When something had gone radically wrong, obviously by her doing, she would blandly deny all knowledge.
>
> We would go to the beach or the pool on a hot day, and I would sort of dip in and just lie in the sun, while K insisted that she had to swim thirty lengths.

Of such formulations, Smith notes that 'the first part of the contrast structure finds the instructions which select the categories of fitting behaviour; the second part shows the behaviour which did not fit'. By employing such a 'c-structure', then, the teller of a story, or an 'ascriber' can demonstrate the rational methods to be used, and to be heard, in making sense of the account as a warranted one.

In general terms, such c-structures can be used by members to formulate and make observable 'noticeable' and 'newsworthy' events or phenomena. The properties of such anomalies may be available for inspection and formulation by reference to 'discrepancy rules', whereby inappropriate pairings of MCD's and CBA's are assembled. In this way, members may 'notice' things, produce displays of 'noticing' and provide ways for other members to 'notice' the same things.

NOTES

1. For a number of papers in this style, see P. Woods and M. Hammersley (eds.) *School Experience*, Croom Helm, London, 1977.

2. Recent examples of work in medicine of this sort can be found in M. Wadsworth and D. Robinson (eds.) *Studies in Everyday Medical Life*, Martin Robertson, London, 1976.

3. The study is reported in detail in P.A. Atkinson, *The Clinical Experience: An Ethnography of* Medical Education, unpublished Ph.D. thesis, University of Edinburgh, 1976.

4. M. Stubbs, 'Teaching and Talking: A Sociolinguistic Approach to Classroom Interaction', in G. Chanan and S. Delamont (eds.) *Frontiers of Classroom Research*, National Foundation for Educational Research, Slough, 1975.

5. For a critical review of so-called 'interaction analysis' in classroom research, see D. Hamilton and S. Delamont, 'Classroom Research, A Cautionary Tale', *Research in Education*, 11, May 1974.

6. J. Sinclair and R. Coulthard, *Towards an Analysis of Discourse*, London, Open University Press, 1974; M. Stubbs, op. cit. and 'Keeping in Touch: Some Functions of Teacher Talk', in M. Stubbs and S. Delamont (eds.) *Explorations in Classroom Observation*, Wiley, Chichester 1976.

7. M. Coulthard and M. Ashby, 'A Linguistic Description of Doctor-Patient Interviews', in M. Wadsworth and D. Robinson (eds.) op. cit.

8. This is taken from Stubbs, op. cit. 1975.

9. The implications of this are taken up by M. Hammersley, 'School Learning: The Cultural Resources Required by Pupils to Answer a Teacher's Question', in P. Woods and M. Hammersley (eds.) op. cit.

10. H. Mehan 'Accomplishing Classroom Lessons', in A. Cicourel et. al. *Language Use and School*, Academic Press, London 1974.

11. ibid.

12. Hammersley op. cit.

13. ibid.

14. Black, *The Logic of Medicine*.

15. M. Foucault, *The Birth of the Clinic*, London, Tavistock, 1973. Shows how the phenomena revealed to the clinical 'gaze' are historically specific.

16. For a classic example of diagnosis and nosology from an unfamiliar culture, see C. Frake 'The Diagnosis of Disease Among the Subanun of Mindinao', *American Anthropologist*, 63, 1.

17. K. Popper, *Conjectures and Refutations: The Growth of Scientific Knowledge*, Routledge and Kegan Paul, Routledge and Kegan Paul, revised ed. 1972, p. 46.

18. On the importance of mutual typification in everyday life, see A. Schutz, *The Phenomenology of the Social World*, Evanston, Northwestern University Press, 1967.

19. H. Sacks, 'An Initial Investigation of the Usability of Conversational Data for Doing Sociology', in D. Sudnow (ed.), *Studies in Social Interaction*, Free Press, New York 1972.

20. Ibid.

21. H. Sacks, unpublished lecture notes, UCLA.

22. On such typification, see H. Sacks, 'Notes on Police Assessment of Moral Character', in D. Sudnow (ed.) op. cit.

23. This view of 'newsworthiness' is presented by J. Lee, 'Innocent Victims and Evil Doers', unpublished paper.

24. H. Sacks makes the point that 'normal appearances' are themselves socially accomplished - unpublished lecture notes.

25. This is suggested by R. Watson, 'Readings of Help', unpublished paper.

26. This extract is taken from A. Poussaint, 'A Negro Psychiatrist Explains the Negro Psyche', *New York Times Magazine*, and is used by S. Ervin Tripp, 'Sociolinguistics', in L. Berkowitz (ed.) *Advances in Experimental Social Psychology 4*, 1969.

27. It appears to be a common feature of classroom discourse that teachers do not explore the underlying logic of students' responses - be they correct or incorrect.

28. On the social accomplishment of ritual insults, see, W. Labov, 'Rules for Ritual Insults', in D. Sudnow (ed.) op. cit.

29. D. Smith, 'K is mentally ill: The Anatomy of a Factual Account', unpublished paper.

TALK IN SMALL LEARNING GROUPS: ANALYSIS AT THE LEVEL OF COMMUNICATION

Douglas Barnes and Frankie Todd

Abstract

Small groups of adolescents were audio-recorded while engaged in the discussion of learning tasks set by their teachers in various subjects with the intention of analysing the transcribed discussions in ways that would throw light on interrelations between cognitive and interactive processes. This paper discusses the grounds upon which it is appropriate to use transcribed linguistic data as a basis for descriptions of cognitive and social events, and some of the theoretical problems which had to be faced in doing so. It will end with a brief indication of the descriptive strategy finally adopted.

TALK IN SMALL LEARNING GROUPS: ANALYSIS AT THE LEVEL OF COMMUNICATION

Douglas Barnes and Frankie Todd

In this paper we seek to share with the reader some of the considerations which influenced us during a two-year research project.[1] We present a view of the situation in which our data was gathered, and discuss the implications of the kind of analysis which we chose to give to the data.

The question which we set outselves were educational and not linguistic. Was it possible to describe the talk of small groups of children in ways which distinguish more or less successful engagement with the learning tasks they have been set? And if that were possible, could one identify aspects of the social context and of the setting of the task which relate to more or less successful learning? In particular, could those moves by which learners interrelate their viewpoints be identified? (Behind this last question lay Piaget's view that more adequate representations of reality are developed by the incorporation of alternative viewpoints).[2]

Briefly, this is how we collected our data. Our subjects were fifty six boys and girls of thirteen years of age, chosen because they fell into a middle band of I.Q. They came from two schools and were recorded in sixteen groups of three or four members. Approximately eleven hours of tape were transcribed in standard orthography. We worked closely with teachers of a range of school subjects. When their normal teaching approached a point where group work became appropriate, they collaborated with us in drawing up a task. Some of these tasks were tightly structured by a series of questions, while other were open, according to the teacher's wishes. Those groups whom we were recording were then withdrawn from the appropriate lesson, and recorded in separate rooms.

The contexts which we thus created were therefore neither strictly experimental nor exactly like group work in lessons. We gained some control of the situation and an excellent quality of recordings; we lost the right to claim that we were sampling group talk in lessons. This loss seemed less serious in that we wanted to describe talk under circumstances which in our judgment were encouraging, and particularly to understand the effect of placing more control of learning and the social context in the hands of the learners.

A central task in any study of talk must be to map out the subjects' interpretation of the situation in which they are recorded. It is not easy to construct such a map. Undoubtedly they saw the recording as school work and not something else: most of the talk was devoted to the given tasks and not to other purposes. Nevertheless, the problem solving stratgies used were not necessarily learnt at school, since talk of this kind by pupils is not common in lessons.[3] In spite of the constraints imposed by the tasks, the pupils were free to control the cognitive strategies used and the patterns of their interaction, since no teacher exercised moment by moment control. Whatever norms they brought to the conversation were treated as less binding than those of teacher-class discussion, more open to negotiation.

So much we can confidently say about the situation apart from our own part in it as investigators. We believe that the children's interpretation of the situation differed according to the way we worked with them. We shall distinguish two phases in which our methods of collecting data were widely different: one we now call the Participatory Phase and the other the Experimental Phase. Our different methods during these two phases threw unforeseen light upon the problem of delineating the subjects' view of the situation.

During the Participatory Phase, which lasted for five months, one of us made repeated visits to a school to record four of the groups. A teacher who was sympathetic to our purposes had explained the project to the children, and we too chatted informally with them. The experimenter became familiar to the children, and avoided assuming the teacherly role. During the recording the children, who were working in friendship groups, had considerable control over the tape recorder, they could switch off or play back as they wished and could decide when they should stop. They were given a promise of anonymity with respect to the school. Whether or not they indeed understood our purposes, these four groups appeared to believe that they understood, and to take our purposes as positive and non-threatening. We think they saw themselves as participating in our attempt to record good talk.

The Experimental Phase came later as an attempt to conform to a quite different research paradigm. We wished to control situational and I.Q. variables more sharply in order to test hypotheses. We selected children from different classes on the results of a verbal intelligence test, grouped them arbitrarily, and carried out all the recordings in one visit, in order to disturb the school as little as possible. Groups were recorded rapidly one after another to conform to a tight schedule. Attempts to communicate our purposes to the children could only be brief and perfunctory; they could have gained no understanding, nor trust of our good faith. As part of the experimental design, we told some groups that they would not be tested. Inspection of the talk suggested to us that most - and perhaps all - of the children treated the exercise as a test: that is, the meaning they attributed to the situation overrode the experimental meaning which we attempted to give it. Most groups pursued 'right answers', and one group of girls were so anxious that they treated a problem-solving task as an exercise in recollection. Schools are places where assessment goes on; so powerful an interpretation is difficult to supplant.

It is not easy to estimate the effect upon talk of the knowledge that it is being tape recorded. We surmise that no groups were ever entirely unaware, though the groups recorded during the Participatory phase sometimes seem to have forgotten briefly when they became excited. Such awareness was occasionally shown when children addressed the tape-recorder: one boy said, "We've done Two, Tape" (Question Two, that is). The difference between the Participatory and Experimental groups was not a matter of forgetting the recording but of how they perceived the audience it provided. For the Experimental groups, we never ceased to be potentially threatening outsiders; only the Participatory groups could perceive us as unthreatening. We take this to be a valuable reminder that data collected in one context should not be generalised to others without the greatest care. This applies particularly to studies in which a sample of talk is taken to represent cognitive or communicative compentences possessed by the subjects.

It is now time to turn from the situation to the analysis itself. It is useful to distinguish three main levels of analysis which we will call the levels of Form, of Discourse and of Communication. Labov[4] has distinguished between the first two as 'What is said' and 'What is done'. Similarly the Level of Communication might be described as 'What is meant'. These three levels of analysis can be illustrated from our materials: one of the boys said to a girl in his group, "Do you, Diane, think he's a delinquent, Diane?" At the Level of Form this can be given phonological, morphological and syntactical analyses, that is, this level contains various sub levels. One outcome of the syntactical analysis would be to identify the form of the sentence as a 'question'. At the Level of Discourse this utterance would be identified as the speech act often called an 'elicitation'.[5] (It is important to note that a question form does not always function as an elicitation, and that elicitation can be carried out by other forms as well as questions). At the Level of Communication, however, the utterance in question in our judgment functioned as an attempt to force the girl Diane to take a more active part in the discussion and as a judgment about her failure to do so. (Mike Stubbs' argument raises the question whether analysis at the Level of Communication necessitates concurrent analysis at the Level of Discourse and the Level of Form). These levels can be represented thus:

	Level	Labov's description	"Do you, Diane, think he's a delinquent, Diane?"
1.	Form	'What is said'	Question
2.	Discourse	'What is done'	Elicitation
3.	Communication	('What is meant')	Pressure to participate and evaluive judgment

Each of these calls for further comment.

When we set out upon the study of group talk we assumed that we would find a relationship between levels. We hope to identify functional categories and then to be able to specify the forms that 'realised' these functions. This seems to be what Mike Stubbs is recommending,[6] but we found no such simple relationship between forms and functions. For example, as we were interested to identify occasions when the children were trying to come to terms with one another's different viewpoints we tried to set up an 'index of collaborativeness', using forms such as anaphora, subordinations, repetitions, transformations and so on. However, the results of enumerating these forms ran counter to our intuitive judgment of the level of collaboration and its role in the learning. Links between successive utterances were left implicit in our data more often than made explicit, though the nature of the link was often clear enough even to an observer. (This seems to have some relevance to the use made of the concept of Restricted Code). As Labov has shown,[7] links between utterances are frequently carried out not at the Level of Form but via underlying propositions - that is, at the Level of Communication. These propositions imply that participants share implicit knowledge of the kind which we have called 'Frames'. Labov cites the dialogue from a Charlie Brown cartoon.

Linus:	Do you want to play with me, Violet?
Violet:	You're younger than me. (Shuts the door).
Linus:	(Puzzled) She didn't answer my question.

Violet's utterance is only a reply to Linus if one knows that in their culture older children do not play with younger children. (Labov calls this "shared knowledge"). In terms of our analysis this is part of the Content Frame which Violet is using but it is not available as part of Linus' Content Frame. The point to be made here is that one cannot analyse the first two utterances at Level of Discourse as Intiation and Response without using knowledge of the culture, knowledge, that is, which belongs to Level of Communication. Otherwise it cannot be demonstrated that they are not randomly selected utterances from different texts. (To point out that it is possible for an observer to argue backwards from Violet's reply and reconstruct the necessary knowledge is irrelevant: the sequence cannot be analysed solely at the Level of Discourse).

We made some attempt to develop an analysis at the Level of Discourse, using categories such as 'Initiative', 'Elicitation', 'Extension' but abandoned this partly because of the more fully-developed work by Sinclair and Coulthard, and partly because analysis at this level did not seem to be answering our purposes. We were not looking for those characteristics which were common to all dialogue but for those which accompanied success in carrying out co-operative learning through talk. In attempting discourse analysis cannot be carried out solely on formal grounds; throughout we were using knowledge of the subject matter and of the children and their situation in order to attribute discourse categories to utterances: in effect, analysis at Level of Discourse depended upon understanding at the Level of Communication. This contradicts Mike Stubbs' account in which he "peels off" in layers first formal analysis, and then discourse analysis, and sees Level of Communication as a mere "residue". In our account, understanding at communication level is essential to discourse analysis, and necessary at times in formal analysis.[8]

We are convinced that the cognitive and social meanings which we are concerned with require analysis at the Level of Communication, and that analyses at the other two levels will only occasionally contribute to understanding these meanings. Labov in the paper already cited[9] suggests a hierarchy of categories of action in which higher level categories within them a group of discourse categories. We have not found such a relationship of inclusion between categories of Communication which we wished to use and those of Discourse.

In describing the Communication skills and strategies which distinguish some conversations from others we have used ad hoc categories such as these:

Social skills

Monitoring progress through the task
Managing conflict
Giving support
etc.

Cognitive Strategies

Constructing questions
Setting up hypotheses
Using evidence
Interrelating viewpoints
etc.[10]

It must be stressed that these categories are not yet capable of precise operational definition, and that they do not form a system which exhausts the possibilities of meaning at this level of analysis. They are highly inferential, and may overlap, or differ in scale, so that they are not quantifiable. We justify them as a stage in the development of "grounded theory"[11] since they arise from lengthy work on the data, and successive attempts to find forms of analysis that were intuitively satisfying. We sought to find categories which teachers could use to understand group talk in lessons.

The incompleteness and lack of formal definition of the cateogries arises in part from the nature of our data. As Garfinkel[12] and others have shown, meaning depends on the knowledge brought to the interpretation of situated utterances: it does not adhere to the utterances themselves. Since each participant in group talk brings a different frame of reference to the interpretation of an utterance, meaning must be multiple. Moreover, the meanings are also fluid and indeterminate,[13] since each new utterance implicitly reinterprets what has gone before: there is no point in the flow of a conversation at which the invesitgator can stop and say, 'That's what they really meant'. The frame of reference from which we interpret utterances itself changes during conversation: it is only in retrospect that participant or observer can attribute a stable meaning to an exchange (though this attributed meaning can itself change). Thus it is useful to distinguish the 'operational meaning' which participants construct implicitly in the course of the ongoing interaction from the 'reflective meaning' which arises from later reconstruction. The meaning of talk is at once multiple and indeterminate.

We also found it necessary to distinguish what is said about the subject matter from the sending of messages about social relationships in the group. In order to assign meaning to talk, - participants and observers alike must utilise Content Frames - bodies of knowledge about how the world is - and Interaction Frames - views about who the participants are and what they are doing. Content and Interaction Frames are negotiated simultaneously throughout talk, often through the same utterances.

In selecting the Social Skills and Cognitive Strategies we were uneasily aware of dealing only with the more explicit aspects of the complex events which constitute talk, 'explicit' in the sense that we could offer interpretations with some confidence that they bore some resemblance to participants' operational meanings. But these omitted the rest of the iceberg, for we were aware of similar processes going on, perhaps via interpretation and gesture, or perhaps through meanings of the utterances which were unavailable to us because we had not shared the previous history of these children.

In spite of all that we have written about talk as multiple and indefinite, we must make statements about what a particular sequence of talk means if we wish to communicate our interpretations to others. In order to do so we take up the stance of an ideal disembodied observer and assume the existence of a general communicative and substantive competence, that is, assume Interaction Frames and Content Frames which are shared by all members of our culture. But does such common knowledge exist at the Level of Communication? Although we assume this in order to discuss our understanding of our materials, we regard such competences as potentially misleading idealisations.

NOTES

1. 'Communication and Learning in Small Groups',* funded by Social Science Research Council.

2. Piaget, J. (1948) _The Moral Judgment of the Child_, Free Press

3. See Barnes, D., Britton, J. and Rosen, H. _Language, the Learner and the School_, Penguin, Revised Edition 1971.

4. Labov, W. 'Rules for Ritual Insults', in Sudnow, D. (ed.) _Studies in Social Interaction_, Free Press, 1972.

5. e.g. Sinclair, J.McH. and Coulthard, M. (1975) _Towards an Analysis of Discourse: the English used by Teachers and Pupils_, Oxford.

6. See the paper by M. Stubbs in this volume.

7. Labov, W. op. cit.

8. See arguments by Lakoff and others, e.g. in Steinberg, D.D. and Jakobovits, L.A. (eds.) (1971) _Semantics_, Cambridge U.P.

9. Labov, W. op. cit.

10. See Barnes, D. and Todd, F. (1976)

11. Glaser, B.G. and Strauss, A.L. (1968) _The Discovery of Grounded Theory_, Weidenfeld & Nicholson.

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12. Garfinkel, H. (1967) Studies in Ethnomethodology, Prentice-Hall.

13. A similiar point is made by R. Walker and C. Adelman in Towards a Sociography of Classrooms, Chelsea College of Science and Technology, 1972.

* A book based on their research has been published, D. Barnes and F. Todd Communication and Learning in Small Groups, 1977, Routledge Kegan Paul.

CONVERSATION PIECE: THE PRACTICE OF INTERVIEWING IN CASE STUDY RESEARCH

Helen Simons
Ford Safari Project

The case for adopting a case study approach in educational inquiry has been well documented in recent years.[1] Yet little has been written about how to do a case study or how to interview, observe or negotiate - three processes often cited to be the main tools of such research. This paper looks at the first of these; in particular at some of the problems in the practice of interviewing.[2]

Often the practice of interviewing, particularly of the unstructured kind advocated in case study research, is not discussed on the grounds that interviewing is an idiosyncratic, interpersonal process that is not susceptible to systematic analysis. Like teaching, it is seen to be a private, personal skill for which some people are suited and others are not. It takes time to develop, mostly through trial and error though the process may be helped by "looking over the shoulder" of someone acknowledged to have the sensitivity, judgment and intellectual skills that unstructured interviewing demand. The apprenticeship analogy is often invoked to describe how people acquire such skills. But this model is expensive and inaccessible to many. If the growth of practitioners in this field is to parallel the growth of advocates I think we must begin to discuss the problems we experience in practice however self-evident, situation-specific or limited when restricted to the written word, they may seem. This is not to say that personality differences are not important in interviewing - one only has to note how the same question asked by different interviewers can elicit diverse responses from the same person.[3]

It is simply to suggest that there are certain points about practice we can draw to the attention of others which may speed up the learning process.

Another reason why practice is rarely described is that discussions of the interview often never get beyond attempts to conceptualise and justify its theoretical underpinning as a research tool. In this paper I hope to circumvent debate at the theoretical level by treating some of the major premises of my practice as assumptions and so proceed, more or less directly, to explicate my experience.

1. I start from the following assumptions:

1.1 that the justification for case study research as an appropriate mode of enquiry in the study of social situations has been established;

1.2 that interviewing is a useful tool in case study research;

1.3 that the recording of people's subjective definitions of experience is a normal part of case study research;

1.4 that whereas structured questions are appropriate when you know what you want to find out, unstructured questions are preferable when you are not sure what you want to know but are prepared to depend on your capacity to recognise significant data on appearance;

1.5 that, further, it is necessary to adopt an unstructured approach (variously called open-ended or flexible) to interviewing in the study of social situations whose complexity has to be uncovered by the research;

1.6 that unstructured interviewing offers more scope for involving the interviewee in the research;

1.7 that because interviewing is a most penetrative way of gaining information from and about people there is a need for rules to control both the acquisition and subsequent use of interview data.

2. CONTEXT

2.1 For several years now I have been interviewing in curriculum research in secondary and higher education. But what I focus upon here are some of the particular problems of interviewing in schools. Rather different problems arise with interviewing in a higher education context where both staff and students have more autonomy and more time, or in the D.E.S. or educational authorities where problems of access and protocol differ.[4] To be even more specific, what I have to say about the problems of interviewing in schools is influenced by the principles for data gathering and use adopted by the SAFARI Project.[5]

2.2 In practice, case study staff on the Project have been working to the following agreed set of rules:

- interviews should be conducted on the principle of confidentiality;
- interview data is the property of the interviewees and should only be made accessible to others with their agreement;
- how the data may be used should be negotiated with the people interviewed;
- interviewees have ultimate control over what information becomes public;

- the study is restricted to seven days in the field gathering data and twenty-one for writing and negotiating spread over a year.

At the end of the paper I will return to these rules to consider how helpful or unhelpful they are in the light of the problems I now outline.

2.3 I am going to deal chronologically with problems of access and then problems in the process of interviewing in hierarchically-structured institutions. In practice, of course, the two are inevitably linked. Access to and within educational institutions is highly governed by protocol and how access is achieved has consequences for the kind of data it is possible to obtain and how it may be used.

3. ACCESS

3.1 With the Head there is little difficulty in gaining access. His agreement to participate in the study has to be sought. The authority of the funding agency may help to ensure access. He may have little option if he has been asked to participate by the chief education officer. But questions of entry aside, of all the people in the school the Head is the easist person to interview. He has time (though he often denies this). He has power - nothing you say, do, or report is likely to affect his career. He is often lonely, isolated, since he alone has no peers within the institution, and is therefore usually quite willing to talk confidentially to a sympathetic outsider. He can be flattered by the interest you show in 'his' school.

It is difficult to avoid interviewing him first and in fact, it may be advantageous to do so at length to secure his confidence and involvement in the study. However, lengthy interviews with the Head may be unhelpful in terms of how they affect teachers' perception of you and your subsequent interviews with them. Already you have access to knowledge, including perhaps the Head's judgment of them, which they may not have. The Head may also have given you 'carte blanche' to interview pupils, a point over which teachers might have exercised more reserve.

3.2 Teachers, on the whole, are in a more constrained position than the Head. They have less time. While a Head of Department may have a double period free, rarely is this the case with a junior member of staff. Depending upon the authority structure of the school they are less free to be open or to refuse, for instance, access to pupils. If they are innovatory they are often caught up in the struggle for resources or time-table space. Their careers may be at risk or they may think they are. In some instances, they may wish to use the interviewer to enhance their position either indirectly by eliciting your advocacy for their innovatory activities (hoping you will mention their resource difficulties etc., in the 'right places') or more directly by confirming their 'good work'.

3.3 Pupils are an important source of information but gaining access to them is the most difficult problem. Their views are often not known to the teachers or the Head. While some teachers welcome an outsider talking to pupils as an extension of the democratic principle or because they hope the interviewer will tell them 'what the pupils think', others do not (see page Gaining access to sixth formers or 'prize' pupils is less of a problem than getting the opportunity to talk to the 'troublemakers' or 'low-achievers'.

Socially, access is difficult for the pupils as well. They are in the least powerful position. Sixth formers may not get the reference they require if they are too critical. Fourth year low achievers may be constrained by the low status accorded them in comparison with their successful fellows. ("It's only the clever people who have opinions"). Alternatively, of course, knowing they have no status to protect, they may talk quite freely and even adopt a bravado stance - "I don't care what I say".

Pupils have less time than teachers yet more time is needed to establish trust and to understand their experience (this is particularly true of the less articulate). A thirty-five minute period often the only time available is rarely enough to establish the kind of relationship necessary to gain accurate data.

The position is not helped by institutional 'assistance' in selecting pupils for interview. When the time is short it is frequently the teacher who selects the pupils. Not only may pupils be chosen to reflect credit on the school but the introduction by the teacher to the purpose of the discussion may be different from what the interviewer would say. It is often useful to ask pupils if the teacher indicated why he wanted them to have a talk with you so that you may confirm or correct the impression and begin to establish a relationship on your own terms. The researcher, may of course ask the teacher to select specific pupils like 'the silent pupil', the 'below average' or the 'disaffected'. Or if the researcher is able to observe pupils in advance, he may select them himself. An entirely different approach is to seek a cross selection from the roll. But there is still the problem of release from classes. It is very difficult, in fact virtually impossible to gain access to pupils without these pupils being identified by the school. This means that the possibility of anonymising pupil responses is severely restricted.

Finding an appropriate place to talk is also a problem. The Head or the Deputy Head's office won't do. Empty classrooms are rare. Sometimes one ends up in the store room where the acoustics are bad, cluttered by boxes and books. If the research issue in question is a delicate one for the member of staff you may find him or her popping in and out, disrupting the relationship you are trying so quickly to establish. Seek out the careers teacher. He is frequently willing to lend his office which is usually set apart from the main classrooms and is relatively quiet.

4. PRINCIPLES OF PROCEDURE

4.1 Open-ended interviewing challenges conventional expectations of the research process. Relying as it does a great deal on the personal skills and judgment of the interviewer it is also open to manipulation and distortion. Principles of procedure protect both interviewer and interviewee from misuse of the data, provided assumptions are shared. Perspectives, for instance, on the meaning of confidentiality may range from complete trust that the information will not go 'beyond the four walls of this room' to the assumption that the information may be shared with research colleagues but not other teachers in the school or to 'the secret that is passed on to only one person at a time'. Then there may be differences in status of people or information. Does confidentiality, for instance, mean the same for pupils as it does for teachers and the Head? Does confidentiality extend to data expressed in informal chat? Should the same or different rules apply to the use of the data obtained in and out of the interview situation or of data offered by one person about another? Should the same or different rules over the use of data apply to pupils as apply to teachers? What rights do, or should, pupils have?

4.2 Misunderstandings can easily arise if the rules of information use are not fully understood or respected equally by all parties. For example, if the researcher interviews pupils in confidence and does not reveal what they say teachers may see the interviewer in a conspiratorial role with pupils. Since pupils in a hierarchical structure are often the last to be interviewed the researcher may be the only person at one point who has access to what pupils think as well as what the teachers think: staff may see the interviewer in a 'god-like role' which may strain previously established good relationships, if not governed by rules of procedure.

Staff uncertainty about whether pupils have been friendly or hostile is difficult to tolerate:

direct pressure has on occasion been applied to pupils by teachers to reveal what they said in interview. But a more common response to such anxiety is to say to the interviewer "I know you can't tell me what they said but what did they think of ..." Or, if you have interviewed a pupil who is usually silent in class, "did she say anything?" If the interviewer fails to respond to these questions teachers may continue to try to evoke a response by giving their view of what they thought the pupils would say expecting you to confirm or deny their statements. Comments such as "Janet is rather slow isn't she?" or "I expect Mark had a lot to say, he has always told me how he dislikes maths", put confidentiality at risk. To gain credibility with pupils and teachers it is essential to resist such pressure and to take care not to tell teachers anything inconsistent with what pupils are told. It also helps to avoid being seen talking to the teacher immediately after an interview with pupils just as it helps to avoid being seen going to the Headmaster's office by the teacher or pupils you have just interviewed.

5. PROCESS

Judging from the questions asked of case study workers both by new practitioners and by interviewees, many assume that the interview is a one-way process, for the researcher to gain information for a particular research enquiry; where the interviewer asks the questions and the interviewee 'gives' the information. But the process is much more complex than that - more dynamic, interpersonal, intangible.

Both the interviewer and the interviewee bring preconceptions to the interview which will affect what they say, hear and report and which may be confirmed or changed in the course of the interview. Both are making judgments of each other's attitudes and expectations as well as considering the context or implications of the questions or issue under discussion. Perceptions differ too. How the interviewee perceives the interviewer as sympathetic, critical or threatening, for example will influence what kind of information is offered; how the interviewer perceives the interviewee, as interested, indifferent or hostile will affect how he or she behaves. The interview, in other words is a complex social process in which much more than information is being sought or communicated. (It can also be an educational process as interviewees begin to reflect on their own situation and, perhaps, continue the inquiry beyond the formal interview). The interviewer should be continually responsive to the range of social and intellectual reactions in the process of engaging the person in talk: an interview should be a conversation piece, not an inquisition.

Given this emphasis, what does the interviewing process look like in practice? The following are points I try to keep in mind. They are not meant to sound prescriptive. I am simply going to try and uncover the process of interviewing as I have experienced it.- to articulate what I think are the assumptions and principles I work with, or should work with, in interviewing.

5.1 It is important at the outset to establish confidence and trust so that people will speak freely. There must be some motivation to participate other than institutional expectation. On the whole, people will treat the interview seriously if they think you can change something or if they think you accept and understand their problems. Since researchers are rarely in a position to directly influence events they have to rely on demonstrating empathy with the interviewees' concerns. What can help to secure their confidence is to indicate indirectly that you have some understanding of the problems facing them. Offering confidentiality may help if this convention has meaning for them. (See point 4.1). So might informal chat around a topic of local or personal interest to the interviewee; although informal talk is sometimes perceived to be unrelated to the formal interview.

5.2 One way to engage interviewees' involvement in the study is to encourage them to talk about what interests them much as they might in a social conversation. This also helps to break down the formality of the interview over which the interviewer is perceived to have control. Reversing expectations however takes time and may need prompting. Try and dispossess them of any notions that you are the expert. Shift the role to them in early interviews by asking questions which touch on their concerns and which are open-ended enough to allow them scope to reply fully. Respond acceptingly so they will feel free to talk without feeling anxious about being judged or not giving the 'right response'. Let them shift from topic to topic. Counter any question to the interviewer with one which shifts the onus back to them to demonstrate that you really are interested in their perceptions and judgments.

Information people offer on their own initiative is more true, some argue, than what they in answering questions. Whether or not this is so, interviewees' unsolicited responses frequently alert the interviewer to consider the subject under discussion in a new light and in the context central to the person interviewed. Piaget, in criticising the questionnaire as a means of obtaining access to a person's mental processes put this point neatly when he wrote:

> "But the real problem is to know how he (the subject)* frames the question to himself or if he frames it at all. The skill of the practitioner consists not in making him answer questions but in making him talk freely and thus encouraging the flow of his spontaneous tendencies instead of diverting it into the artificial channels of set question and answer. It consists in placing every symptom in its mental context rather than abstracting it from its context".[10]

In many cases where both parties to the interview share a view of the task there is no need to ask many questions; it is more important to listen. A comparison of a tape-recording where the interviewer does not speak for thirty minutes with one where the interviewer asks a question every second minute may illustrate the open-ended approach better than any description. (This is not to say that the interviewer is inactive. His presence, his responses, non-verbal though they may be, and how he takes notes, contribute in quite significant ways. (See point 5.8). Usually the issues the interviewer thought of will be raised by the interviewee if the interviewer listens carefully and refrains from asking questions too soon. Take the following example related by an interviewee:

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* My brackets.

> "It is difficult for me to hold a dialogue", he said, "someone came to interview me once and I gave a mono logue for two hours ... I liked him. He was an easy person to talk to. Then I realised the time. 'You must have some questions' I said to the interviewer. 'No', the interviewer replied, 'you've answered them all'".

5.4 Listening by itself, of course, does not always lead to depth of understanding. Probing is necessary to get behind the expected response or to test the significance of what you are being told. Taking up cues from the interviewee, asking them to elaborate or explain why they adopted a particular view or introducing a theme for comment are all means of extending the initial response. But these can still be pursued in a non-directed way if the aim of the research is to portray the interviewees' judgments, perceptions and theories of events.

5.5 It is evident from the emphasis given to the above points that I think one of the most common errors in open-ended interviewing is failing to listen, either by asking too many questions or interrupting to confirm one's own hypotheses. A second related error is seeking closure too soon by accepting the initial response too readily, summarising erroneously or by asking questions which give the interviewee a plausible response without committing him to reveal what he really thinks or feels. (This is a special danger when interviewing pupils. See point 6.4). Timely summarising of course is very useful to clarify issues and shift the interview a stage further.

5.6 In summary, the kind of skill flexible interviewing calls for is what the anthropologist, Hortense Powdermaker, has called "psychological mobility"[7] or, the novelist, Sybille Bedford, "emotional intelligence"[8]. Sybille Bedford summarises the complex skills involved when she writes:

> "It takes two to tell the truth".
>
> "one for one side, one for the other?"
>
> "That's not what I mean. I mean one to tell, one to hear. A speaker and a receiver. To tell the truth about any complex situation requires a certain attitude in the receiver".
>
> "What is required in the receiver?"
>
> "I would say first of all a level of emotional intelligence".
>
> "Imagination?"
>
> "Disciplined".
>
> "Sympathy? Attention?"
>
> "And patience".
>
> "All of these. And a taste for the truth - an immense willingness to see".[9]

5.7 If the study involves a series of interviews, who sets and shifts the topics may vary from interview to interview. What is appropriate at one point may not be at another, as understanding and perceptions change. At times the interviewer may want to feed in some interpretation, at other times to take up a cue from the interviewee. Towards the end of the study precisely the opposite tactic from responding to the interviewee's initiative may be appropriate, particularly if the interviewee has a habit of repeating his story over and over again. In such a case the interviewer may want to be quite assertive or exclusive, about the issues he would like the interviewee to comment upon.

5.8 Interviewing encompases more than listening, asking questions and being socially responsive. Often it is important to judge the significance of what is said by non-verbal cues such as gestures, the tone of the voice, how people dress, how they look, how and where they sit or to infer from what is not said or what is denied what the interviewee thinks or feels. At the same time acceptance of non-verbal cues may be misleading. Their significance has to be judged in relation to all the data obtained.

5.9 In what order people are interviewed affects the process and the kind of information obtained. If teachers are interviewed after the Head they may assume what he has told you and be guarded in their response. If pupils are the last to be interviewed - the usual pattern - they may feel that they are expected to confirm what the teachers said. While much of the data must remain locked in confidentiality it is difficult for the interviewer to avoid using the information gained from previous interviews to sharpen and focus subsequent ones. It may also be necessary to further understanding. But it does raise a difficult ethical question if confidentiality is assured. The interviewer may breach confidentiality quite unwittingly as he asks a question which was stimulated by information he gained from previous interviews. It is not difficult to offer a defence in such a case and thus protect previous interviewees from feeling you have betrayed their confidence. The interviewer can simply deny the inference (which may not, in fact, be true) or indicate that the issue was highlighted in a previous setting. This may seem a minor point to deliberate but it does illustrate why the interviewer needs to be continually responsive to the reactions of interviewees if he wants to retain trust and obtain reliable data.

5.10 It may also be useful to note the number and kind of interruptions accepted in the interview. Does the Head, for instance, take an interruption from the Deputy Head but dismiss one from the Careers' Officer? Does he differentiate between the telephone calls he takes and those he defers? Who comes into the room while you are there? What issues does he discuss with others while you are there and what does he reserve? Not only may these observations indicate how the interviewer or whole study is perceived, they offer useful clues for how to act subsequently.

6. SPECIAL PROBLEMS IN INTERVIEWING PUPILS

Many of the points already mentioned apply equally to pupils but are more difficult to put into practice. Talking too much, listening too little, suggesting answers are real traps if one is aspiring to reflect pupils' thoughts and feelings. The constraints of interviewing within the school in a short time do not make the task any easier.[11]

6.1 Pupils learn to live by rules and conventions prescribed by those responsible for the running of the school and may not feel as free as teachers to express their attitudes and feelings. In schools which have fairly traditional curriculum, furthermore, pupils may not have had much opportunity to talk in class or informally to teachers outside class. A stranger coming in for a few odd days may have difficulty beyond institutional habits. Some pupils appear to treat the interview as a test situation, and try to give 'right' answers.

Direct questioning while providing a check on perceptions or events described by teachers, rarely gets beyond conforming to what the teacher or institution expects and, therefore, often fails to reveal understanding of the pupil's experience. More inferences have to be drawn or a more direct indirect starting point adopted to try and free pupils from the constraints of school environment.

6.2 Where pupils have been selected by the teacher they may associate the interviewer with teachers and the authority structure and this may restrict discussion. (This differs from the authority of the research agency which, while useful to gain access, may also inhibit interaction). You may be seen as a spy of the establishment. It may help to indicate that you were once a teacher but now are visiting schools talking to pupils about what school is like from their point of view. Or you may appeal to status "I am from the university ..." or to their interest in helping you with research, though this tactic appears to have low credibility. Whatever tactic is adopted it is important to try and disassociate yourself from the school establishment. At the same time to maintain credibility with staff one must avoid the opposite danger, of appearing to be on the side of the pupils.

Some pupils may be reluctant to talk out of loyalty to teachers or the institution, fear of peer group or teacher reprisal, or simply lack of interest in your enterprise or the school. But others may be quite willing to vent spleen and seek your sanction and support. "Can you change things for us, Miss?" is a common request from the disgruntled or hapless fourth year leaver.

6.3 It is not simply a problem of getting pupils to talk but to get them to talk on relevant issues. They may well chat on about school meals, assembly, uniform (which may give insight into how the school is run) but not so easily talk about teachers, subjects or school. A common response to questions about school for a fourth year leaver, for example, is to say "It's boring". It is important to sort out boredom or institutional responses from what they are really saying. Sometimes one of the peer group may begin to reveal the actuality. 'They say it's boring, but they don't mean that. In such-and-such a case this happened ..." Other times the interviewer has to infer.

6.4 On page (point 5.5) I noted that seeking closure too soon was a special danger when interviewing pupils. Note the following instance where I interrupted a pupil in an interview on the theme of participation in class discussions to summarise what I thought she might feel. The girl was a 'non-talker' in class:

> "Did you feel ... that you did have things to say?"
>
> "Yes. But often other people said them ..."
>
> "And that put you off saying something another time did it?"
>
> "Umm. If you say something you sometimes think that if you say something wrong people are going to think it is funny".

Here the pupil dismissed my summary questions in fact to go on to say why she felt diffident about talking in class. In other cases such a question effectively closes discussion having presented the pupil with an acceptable response. If pupils do associate the interviewer with teachers, 'wanting to please the teacher' may extent to wanting to please the interviewer.

6.5 Acceptance of non-verbal cues may be especially misleading when talking to pupils. The pupil who is having difficulty expressing himself for instance, frequently responds to questions by saying nothing, with gestures - shifting in his seat, shrugging his shoulders - or by how he looks. Here there is often a tendency for the interviewer to rely on non-verbal cues as indicators of what the pupil thinks and feels. If you accept them too readily you may simply be creating a problem which may end up in an interviewer's monologue or a multiple choice check-out, "Is it this, this ... or this ... that you think?", none of which may actually be what the pupil does think.

6.6 With pupils peer group norms may be supportive or destructive. Either way quite a powerful influence. In general, if pupils know each other and have worked together in groups before they are quite supportive in a group interview. Take the silent pupil, for instance. If she does not speak up much in a group interview other pupils will often explain what she feels or say affectionately, "She's alright, she's much better at writing than talking". Or, as in the following example, she may explain herself. Carol is the pupil in question.

Interviewer: Does the lesson help the shy ones or does it make them stand out more?

Angela: They're so quiet and then all of a sudden one of them'll speak and you think 'What's come over them?' I suppose they've got their opinion in their head and they hear everyone else talking so they think they will.

Patricia: Carol's quiet.

Interviewer: You're quiet Carol?

Angela: Not as quiet as you used to be.

Carol: I'm better than I used to be.

Interviewer: You didn't like speaking?

Carol: I'd only talk when I was asked a question.

Angela: Sort of speak when you're spoken to. I noticed that when I first met her, I thought she was quiet.

Interviewer: But now you speak when you want to put your point of view.

Carol: Yes. When I think someone's wrong, I'll say what I think.

Interviewer: And how long did it take you to get to this stage?

Carol: Well, it was more friendly, we sat in a circle and we could speak to each other. That was better and it didn't take long, only a few lessons.

Angela: I noticed after three or four lessons Carol started speaking more.

Patricia: I spoke the first lesson.

Angela: So did I.

Carol: It gets me mad when people say you're very quiet though. I enjoy other people's views as well.

Angela to Patricia: Probably the way you shout, you probably frighten them to death.

If pupils do not know each other, peer group norms may operate in a constricting way and one may get little mileage out of group interviews with pupils. The same may be true of interviewing boys and girls together.

7. SOME CONTINUING PROBLEMS

However experienced in interviewing one becomes there will always be situations you feel you did not handle satisfactorily. Some which remain problematic for me include:

- how to get the teacher out of the room when you want to interview students;
- how to interview inarticulate pupils;
- how to respond to the person who reveals all and immediately wishes he had said nothing;
- how to evoke pupil responses which are not just responses to the interview situation;
- how to deftly get out of the Headmaster's office;

- how to get beyond the institutional response in a short time;
- how to avoid the headmaster escorting you to coffee in the staff room when you have arranged to interview a teacher immediately afterwards;
- how to deal with the unanticipated, like teachers not involved in the study wanting to be interviewed when you are working to a tight schedule;
- how to respond if the interview tries to reverse roles and assume the interviewer's position.

If some of these points sound trivial this is perhaps evidence of the extent to which we underestimate the importance and the delicacy of the social process which the case study worker is compelled to negotiate in the pursuit of data. There are no formulae, no prescriptions for resolving such problems. Resolution is a matter for personal judgment in the specific context.

8. A FEW SPECIFIC CASES

On the assumption that we sometimes learn from the practice of others I will indicate how I tried to resolve just three of these problems. In some cases I could not, and still cannot, think of what is the most appropriate response. I do not intend to justify how or why I responded the way I did in these instances. I don't know if my response was right or wrong. It is simply what I did.

8.1 Teachers often assume they have a right, or wish to stay in the room when you are interviewing pupils. In an institutional framework their presence usually inhibits pupils and the interviewer. On several occasions like this where I have felt impeded by the teacher's presence I have paused and said very slowly ... looking at the pupils:

> "I think ... um ... this may be a difficult one to answer ... while your teacher is here, but ..."

The teacher shifts in his seat, looks slightly uncomfortable and says

> "Shall I go?"
>
> "No, no ..." looking at the teacher this time, "I don't think that's necessary ... I'll give it a try. It's ",

speaking quickly as though I was just about to ask the question ...

> "I think" says the teacher over speaking, "that perhaps I ought to go".

The teacher gets up quietly and leaves.

It seems essential to interview inarticulate pupils alone unless the peer group is particularly sympathetic. Even then I am far from confident that we can establish the trust necessary in a short time to adequately represent their experience. If part of the reason for pupils failing to talk seems to lie with the structures of the institution, one way to overcome this problem, it is often suggested, is to take them out of the school and interview them in your car or a nearby cafe. But this seems to me to be a solution that fails to take account of the problems of access and control. Inarticulate

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pupils, furthermore, are often defined as 'hostile witnesses' to the school. If you take them out of the school you may be aligning yourself with the 'hostile witnesses' and possibly lose credibility in the eyes of the staff.

8.3 How to get beyond the institutionalised response in a short time is equally problematic. I have tried presenting provocative interpretations of the school to teachers individually in the hope that they would correct the account or a concensus interpretation to a group of teachers as a means of provoking divergent views. Both seem to work but on one occasion I ran the risk and lost the impartial and fair stance I was striving to establish. Some people whom I feel will not misinterpret my intention and whose response I just do not believe, I have challenged directly, or I have confronted them with information that questions the position they are taking or pointed out inconsistencies in their views. Most often this leads to a modification of their first position and one which I have assumed to more accurately represent where they stand.

With pupils, the problem remains acute. Starting with something immediate to their experience, like the lesson they have been drawn from, a recent event in their locality or a recent television programme helps to get them talking and may, by comparison or direction eventually bring them to discuss topics relevant to the study. But usually a more indirect approach is needed. I have tried to present them with the opposite of what I think may be an accurate description of the school. While they respond, sometimes quite heatedly, I suspect this simply serves to confirm the view

I held. On the assumption that adolescents often have different views from their parents I have asked pupils to tell me what their parents think of the school, the curriculum, and the examination, and vocational opportunities it offers and tried to infer from their response (both spoken and observed) what they do think.

8.4 Other approaches which I have sometimes thought of trying but never had the time nor the opportunity include:

- asking pupils to describe 'critical incidents' in their school life.
- asking pupils to describe how they found their way around the school, who did they talk to on the first day, first three weeks, who do they talk to now and so on ...
- following one pupil for two days, observing and talking at intervals.
- interviewing the same pupil every time you visit the school; asking him or her to keep a diary of events and observation.
- comparing how pupils talk in class and in the playground and using this as a focus for talk in interview.

9. RECORDING THE INTERVIEW

9.1 Reporting information and observations in an essential part of the interview process. Whether or not to tape record interviews is often a critical issue. Arguments against using tape recorders usually centre on their intrusiveness inhibiting honest accounts or the time that it takes to process and trabscribe the tapes. But in most situations I find that these disadvantages are outweighed by the advantages of tape recording.

9.2 Tape recording helps to ensure that the data is accurate. However good one's memory the distortion in reporting that can occur is considerable. It is easy to mishear. It is tempting, if the interviewer is pursuing specific themes or hypotheses to note those verbatim quotations which fit. Accuracy can easily be checked from time to time by comparing verbatim quotations written down during the interview with what is recorded on tape. To check whether the tape recorder inhibited interaction it is useful to compare what is said when the tape recorder is off with what is said when it is on. However, it is not a guarantee of accuracy. Distortions and omissions in transcribing must be legion. Accents may be difficult to hear. You have been there. The secretary has not. Even intelligent guesses may need to be checked, and the omission or mistranscription of little words can distort the sense in quite significant ways like the omission of the first three words of the following sentence from a headmaster's interview:

> "Some staff say I am a paternalistic dictator".

9.3 The interviewer, relieved from the burden of having to take detailed notes can listen, observe and respond more attentively to the interviewee. And the interviewee can feel at ease not having to worry, as John and Elizabeth Newson[12] point out, about the possible significance of what the interviewer notes down in relation to what she does not. If the researcher wishes to prepare a report that gives prominence to interviewees' perceptions and judgments and conveys the texture and meaning of what they say, it is useful to quote verbatim. It is difficult to do this accurately without a tape recording.

9.4 Even if the interviews are tape recorded, responsibility for note taking is not diminished. It is still important to take notes during the interview to remind the interviewer of issues to raise in subsequent interviews; to enable the interviewer to write a report distilling the main issues before the interview is transcribed; or to offer an editing guide to a secretary if a transcript is being prepared.

10. PROCESSING THE DATA OBTAINED IN INTERVIEW

10.1 I have not said much about the process of selecting and processing the data which is perhaps one of the biggest problems of all. How do you assess the worth of the data, its meaning in relation to other data obtained in the study and its accuracy? On what criteria do you select events, incidents, themes, issues to report or verbatim quotations in illustration or support? On what criteria do you structure a report?

10.2 Problems associated with processing the data are large enough to warrant another paper. But I can make a few brief points here. Criteria for selection of data change from study to study but whatever they are it is important to select themes and data against a background of what happens in the process of interviewing, when the person was interviewed (early in the morning, or at the end of a tiring day, for instance), whether the interviewee was clear about the purposes of the research and how the interview data was to be used, if the response was volunteered or elicited by questioning which took in understandings gained from previous interviews, and so on ...[13].

10.3 The most skilful interviewing is often indirect, although it places a lot of responsibility on the interviewer to infer and interpret. If inferences are drawn from incidents, observations, and interviews, a full context may need to be reported so that other people have the opportunity of making different inferences.

In the context I am working in at present the difficulty of processing is eased somewhat because the intention is to reflect issues of concern to the interviewees and selection of which issues are to be reported is negotiated with them. This does not solve the whole problem because there are other decisions to be made. But it may help to reduce bias in the interviewer's selection.

11. RETURN TO THE RULES

11.1 At the beginning I said I would return to the rules. Are they helpful? Or do they, perhaps, create some of the problems I have outlined? I will comment on two which are interlinked. Giving control to participants over the use of the interview data coupled with conducting interviews on the principle of confidentiality encourages teachers to talk freely and helps to gain access to data in a short time. Both, however, have their drawbacks.

11.2 Giving blanket confidentiality creates a problem over the use of the data; it tends to defeat the aspiration to complete the study in a short time because release of data from confidentiality has to be negotiated at each stage; it sometimes means that data which could be used to break the rhetoric or push the interview forward is locked in confidence.

11.3 Giving participants control over the use of the data increases the time needed for negotiation; as teachers come to exercise control they may modify or change their minds leaving the researcher to negotiate further or incorporate their changed responses. The researcher also has to face the fact that some data may be irretrievably lost or that what is given permission at one time is retracted at another in the light of subsequent evidence.

11.4 Just as the twenty-eight day time scale poses problems for the negotiation and release of data[14] so the seven day in the field restriction is a constraint on the style of interviewing advocated in this paper. To put the principles I have outlined into practice requires more time than a thirty-five to forty minute period and a few days in a school. So many interruptions - bells ringing, room changes - and such a crowded day for teachers - collecting materials for the next lesson, supervising playground duty, attending meetings - hardly provides the private setting conducive to encouraging people to reflect on their experience. If a school is timetabled in blocks of three periods or a series of doubles the problem might be alleviated a little but teachers would still have to find free time.

11.5 Interviewing pupils in a short time remains a problem; also how to use information obtained in confidence from pupils while protecting them from any repercussions of making that information accessible. It may not be possible to convince pupils in one interview what confidentiality, let alone control means, even if it is extended to pupils, and at this stage, with the exception of sixth-formers we have not extended negotiation of data to pupils. I can see no reason why the principle of control should not apply to them. But it adds to the problem of and may affect the degree of access granted.

11.6 One of the reasons, perhaps escape clauses for researchers using pupil data without pupils' specific agreement (and I have done this myself) is to say that they are less easily identified. But this may not be the case if teachers selected them or released them from classes for interviews. Only reporting general issues raised by a number of pupils (if many are interviewed) may protect individuals from being identified. But this does not solve the problem of how to use the incidental comments which sometimes provide a key to understanding and which may be traceable, in the institutional context of interviewing three or four pupils.

11.7 Though difficult, the question of appropriate rules and procedures for pupil interviews in case study research ought to be explored. Such rules are likely to make research more difficult to carry out but more defensible. As case study research becomes more widely practiced and discussed revealing its structure, methods, principles and procedures, its practitioners will be called upon to articulate a socio-ethical stance, which should consider all contributers to the research.

NOTES

1. See, for example, Simons, H., 'Innovation and the Case-Study of Schools', Cambridge Journal of Education, Michaelmas Term, 1971: MacDonald, B., and Parlett, M. 'Rethinking Evaluation: Notes from the Cambridge Conference,' Cambridge Journal of Education, Vol. 2, 1973; MacDonald, B., and Walker, R. 'Case Study and the Social Philosophy of Educational Research', Cambridge Journal of Education, Lent Term, 1975; Stake, R.E. 'The Case Study Method in Social Enquiry', University of East Anglia, mimeo, 1975.

2. While most social science textbooks usually contain some general description of interviewing techniques, this paper addresses the particular problems of unstructured interviewing within a bounded institution.

3. In fact some people, like Ferdinand Zweig, argue strongly for the interviewer's personality to be an integral part of the interview

> "... the art of interviewing is personal in its character, as the basic tool of the interviewer is in fact his own personality ... he has to discover his own personal truth in interviewing, how to be friendly with people without embarrassing them, how to learn from them without being too inquisitive, how to be interesting without talking too much, how to take great interest in their troubles without patronising them, how to inspire confidence without perplexing them".

He suggests further than the interviewer needs to have 'a certain understanding of himself' ... and 'a great range and variety of personal experience' ... in order to be able to appreciate and empathise with the ambivalent concerns of the interviewee. (Quoted by Andreski, S. 'Hiding Behind Methodology' in Social Science as Sorcery, London, Andre Beutsch, 1971.

4. Some of these differences are discussed in a paper by Simons, H. 'Styles and Context of Interviewing', mimeo, The Nuffield Foundation 1976.

5. SAFARI is a three year research project looking at medium term effects of four curriculum projects adopting procedures which aspire to shift control of the research data from the researcher to participants. The project attempts to involve teachers in research by giving prominence to their perceptions, by sharing and negotiating the use of interview data with them and by encouraging them to correct, modify, confirm or add to early interpretations of the researcher. In this way a shared responsibility for what eventually becomes public is developed by the participants and the researcher. One further characteristic of this study is that it attempts to abbreviate the time scale of the research so that the research process itself can be replicated by non-research workers.

6. Not all researchers take the view that trust is the most appropriate basis for interviewing in case study research. I am not concerned here to discuss different styles but rather to outline what seem to be the essential features of flexible interviewing within a framework of trust.

7. Quoted by Walker, R., 'The Conduct of Educational Case Study: Ethics Theory and Procedures', *SAFARI Innovation, Evaluation, Research, and the Problem of Control*, Some Interim Papers, CARE, University of East Anglia, 1974, p. 90.

8. Ibid., p. 91.

9. Bedford, S. '*A compass Error*', William Collins, 1968, Fontana Books, 1975.

10. Piaget, J., The Child's Conception of the World, trans. by Joan and Andrew Tomlinson. London: Routledge and Kegan Paul, 1929. Introductory chapter "Problems and Methods", p. 4.

11. For those interested in interviewing pupils unconstrained by the school context and with a view to understanding their mental processes, Piaget (vide supra) is valuable reading.

12. Newson, J. and E: Parental Roles and Social Context, in Shipman (ed.) *The Organisation and Impact of Social Research; Six Original Case Studies in Education and Behavioural Science*, London, Routledge and Kegan Paul, 1976.

13. For one example of the criteria used for editing see 'Brookland School, Brookshire County: A Case Study in the Management of Innovation', in *From Council to Classroom: an Evaluation of the Humanities Curriculum Project*, by Stephen Humble and Helen Simons.

14. Simons, H., Building a Social Contract: Negotiation, Participation and Portrayal in Condensed Field Research. In SAFARI, Theory in Practice, Paper 2, Centre for Applied Research in Education, University of East Anglia, 1977.

ON FIRST HEARING

Clem Adelman

The Ford Teaching Project made a concerted effort over nearly two years, to establish and support a group of 40 teachers who were attempting to self-monitor the intended and unintended effects of their actions on pupils. The central team - John Elliott and Clem Adelman - had suggested that a feedback from pupils could be got by asking them to keep diaries, to interview them, to record lessons, and so on. Teachers of younger children, on attempting to put these techniques into practice, reported that "it was no use trying to get feedback from them because they could not express themselves adequately". Older pupils often treated the teacher's request for feedback as a cause for mirth and ridicule. Other teachers, obtaining feedback that was uncritical, took this to mean that they had no problems in communicating the intent of their actions. Only by breaking the stalemate concerning the eliciting of honest accounts could the teachers begin to monitor the extent and type of hiatus that separated their aspirations from their practices. The collaboration within a mutually agreed ethical framework deriving from practitioner's theory - action research as we understood it - could not commence until honest accounts could be obtained on the form of both teachers' and pupils' accounts. The central team was forced - indeed asked - to intervene as an intermediary between teachers and pupils to try to elicit honest accounts from teachers and from pupils and to feed one back to the other. This intervention, then, took the form of what Cicourel calls 'triangulation'. This article reviews the practice and experience of Ford T when using the research strategy of triangulation. It looks at two of the triangulations that were accomplished during the course of Ford T. As Cicourel describes in 'Cognitive Sociology'[1] there is no one right set of procedures to accomplish triangulation. He describes several triangulation studies and these are summarised as follows:

> "... As in the encounter group study and the study of language acquisition in the home, different accounts of the same scene were obtained. Different accounts reveal the difficulty of trying to repair each glossed level of information to claim 'adequate objectivity' because these glosses too can be infinitely changed and expanded. Each account draws upon both stated and unstated particulars and is contingent on the social constraints of the actual lesson. One's selective storage or changing memory of the setting or selective or changing audio or video-taped recovery of the setting provides an important basis for indefinite accounts of the 'same' scene".

When the first Fort T triangulation was commenced in March 1973, this book Cicourel had not been published. This author had to draw on incomplete accounts, for instance in other work of Cicourel and of Garfinkel.[3] Guidelines for interview were adapted from Frake[4] and Black and Metzger[5]. Harre and Secord suggest asking the actors for their accounts, but this suggestion is hypothetical, rather than arising out of practical problems of such an enterprise.

Now, at least, with some practice and experience as a basis, it seems to me that triangulation involves getting people to give accounts of what their actions were. These accounts are, however, not accounts where the questions are constructed from the interviewer's own interpretations of the actions, but through the interviewer's reporting or replaying some sort of representation of the actions. For instance, a film, tape-slide, video-tape, tape-recording, or notes, are made available to the interviewees. Our practice of triangulation involved an attempt to relate the way people give accounts of what they do, to their accounts of the representation of what they do. Then, subsequently we elicit their interpretation of an account of what other people say they do. Any evaluation of self or other focusses on the actions of the actor in a role, rather than an evaluation of the person.[6] The underlying idea here is that no action is self-contained; people can have intended actions which are constrained by context. No actions are untrammeled, all actions in the social world are interactions. Interaction necessarily involves a reciprocation and thus a reciprocal viewpoint. Triangulation, then, does not treat the speech act self-contained action. A speech act is seen as incomplete, needing reciprocal interpretations to complete its meaning in social context. These practices are supported by the ideas of illocutionary force and uptake[8] and central to 'taking the role of the other' as propounded by George Mead.[9]

The practice of collecting discrete accounts from witnesses of an event has been well established by law enforcement agencies and disseminated to a wider public over time by authors such as Wilkie Collins, Conan Doyle, Georges Simenon. The attribution of blame during rule enforcement in schools usually involves the collection of accounts from witnesses and the pursuance of discrepancies. (One significant exception to this custom of schools was the practice of A.S. Neill, who depended on pupils giving accounts of their own actions). Although the eliciting of accounts is central to ethnographic studies, accounts are never reported back by the ethnographer to other members of the primitive culture. (Is this because ethnographers are afraid to taint one member of another culture, so blurring the boundaries?) So Frake,[10] for instance, vividly illustrates that participants' accounts of the same event were not at all similar, but dependent on status relationships and so on.

Students on teaching practice are observed by one or more college staff often on separate occasions. There is, then, an established judgemental ethos of which the action of giving accounts is emblematic, although contexts may vary. In ordinary social life people do not give frank honest accounts about peoples' actions: politeness and courtesy; respect for others' feelings, are involved. We precede the 'crunch' utterance with "to be frank" etc., and then the unashamed utterance.

The transformations a hearer has to make of another's utterance in any context, to understand the intended meaning of the utterance, are based on cultural knowledge of person, role and context. The eliciting of honest accounts depends on certain contextual conditions and even when these things are established, the elicited utterance is not necessarily self-evident in meaning. But at least constraints of politeness, status differential, retribution, courtesy, etc. are reduced in effect. Accounts that appear judgemental do show these qualities. Accounts that are honest and reflexive, showed reduced phatic features.[11]

But to get back to the substantive problem, how to accomplish triangulation. When the central team realised that they would have to intervene in the teacher's own research to attempt to provide the teachers with honest pupil accounts, triangulation seemed to be the appropriate research strategy. As the effects of triangulation on teachers and pupils were unknown the procedural guidelines were exploratory, yet the attempt seemingly crucial to initiate the project, we selected two teachers who we considered from early observations to have certain problematic aspects in their classrooms, yet were reflective enough to take part as a collaborative partner in the triangulation. We hoped that they would not subsequently reject further involvement in the project. We were taking a risk. We envisaged that if the triangulations from these two teachers could be circulated (with the permission and editing of the participants) amongst the other teachers, then the breakdown of the stalemate in obtaining honest accounts would begin. Other teachers might, if we could get substantial feedback from pupils, begin to take seriously (as valid rather than reliable) pupils accounts of teacher actions.

The procedures in triangulation

The accounts of participants in a classroom event are elicited by an observer, who was witness to that event. The observer attempts to maintain an unbiased relationship to what goes on but this non-evaluative stance is only possible through a certain amount of awareness of one's own beliefs and values that one brings to the classroom. The observer has to hold in reflexive suspension his own beliefs and values about an activity.

STAGE ONE: The observer has already recorded the lesson. The form of recording might be notes, tape-slide, tape-recording, and so on. The observer has to decide what the sequence of interviews would be - if the pupils first, then the observer, acting now as interviewer, would be asking the pupils to give their account of the lesson. Eventually the onus would be on the pupils to account for discrepancies in their first account as compared with the teacher's first account. If the teacher is interviewed first, then the onus would be on the teacher to give an account of the discrepancies between his account and the pupils' account. As the project was concerned with the problems of teachers researching their own teaching, the onus had to be on the teacher.

STAGE TWO: Pupils' accounts are elicited. Pupils are selected in several ways. Where the teacher mentions a particular event, the pupils in that event are asked for their accounts. Where the teacher subsequently talks generally, the central team member would talk to pupils that had worked alone, pupils that had worked in a group, and especially to pupils who seemed to the observer to be involved in some misunderstanding or miscommunication with the teacher. The particular sections of the lesson that the teacher self-selected from a recording, or the observer questioned the teacher about and then repeated to the pupils were important. The observer's questions are based on the teacher's first account; thus not only does the observer collect the pupils' interpretation of events selected as 'significant' by the teacher, but the interviewer may introduce through his own questions the teacher's first account for the pupils to comment on without mentioning the source as being the teacher.

STAGE THREE: The pupils' accounts are played back to the teacher with the questions asked by the interviewer. The teacher then gives his understanding and explanation of the pupils' account. That is, this is the point when the onus is on the teacher to account for discrepancies between his first account about the intentions and the pupils' account about their interpretation of his action. This is the time when the teacher - if he does at all - makes most explicit his beliefs and values, his tacit assumptions about his actions and their effects. This is also the time when the self-esteem of the teacher is likely to be threatened through being presented with discrepant accounts from the pupils. The interviewer has to encourage the teacher to give his account at the same time drawing on the accumulative store of trusting and non-judgemental relationship with the interviewer/ observer. The fact that the interviewer has also witnessed the original event is invaluable in helping to ground the proceedings and realities that can be referred to by the teacher. He has the knowledge and confidence that the observer is capable of giving yet another account, one which is fair, unbiased, and full of genuine doubts about the observer's own interpretation. The implication of the necessity for the observer to be a witness to the actual event is highlighted if, say, a video recorded event is the information source of the triangulation. In this case the observer maybe watched the lesson on an outside monitor screen. Although the triangulation can give a lot of information about video recordings, it does not give much information about the actual event.

When the teacher has successfully begun to self-monitor and through self monitoring become self aware, the interviewer can make the intent of his questions explicit - he can study his own interpretations - for through his monitoring the teacher collects and can cite information to refute or confirm the observer's interpretation. The observer's interpretations in the early stages of the project were sometimes interpreted as confrontation, but later they were seen as genuine enquiries.

STAGE FOUR: The lesson and the accounts are transcribed. The transcripts are carefully reviewed to collect together the separate accounts that focus on the same and on similar topics. These are juxtaposed. The interviewer's accounts of the teacher's first account, the pupils' first account, the teacher's second account, are placed alongside each other topic by topic. In the Ford Project we used triangulation as a source of evidence to formulate hypotheses about the effects of certain actions on pupils for the teachers to subsequently test in their own classrooms. However, our acts of intervention through triangulation were only carried out during the initial to middle stages of the project. Once the honest account stalemate was broken, the teachers found they could begin to get feedback on their own initiative from pupils and begin to formulate and test their own hypotheses. Especially in the initial stages of the project, the feeding back of the triangulations we hoped would encourage teachers to start research into their own teaching. We hoped that the triangulations would be clear evidence that there were often gaps between the stated intention and the actual effects of actions.

I will now provide some extracts from two triangulation studies, collected during the Ford Teaching Project, to illustrate stages one, two and three.

In Stage One, the teacher is asked to be concerned with his account of the lesson. This account tends to be descriptive and the extent to which the teacher introduces explanations tends to depend on the amount of threat he feels and the extent to which he feels the interviewer is evaluating his teaching. As with the later stages, two and three, the honest, frank account is likely to be forthcoming if all parties' actions are predicated by a mutually agreed ethical framework which specifies rights and duties of participants in the project, especially regarding control of data. Trust between the observer/central team researcher and teachers and pupils develops within this agreed modus operandi.[12]

When I was envisaging this article, I had strong retrospective impressions that the initial interviews with the teacher were those where the teacher's descriptions and to lesser extent his explanations of the events within the lesson, would be prominent. The same qualities would be perceivable in the pupils' first account. Only on the second order account when the teacher heard the pupils' account, would the beliefs and values, especially the values of the teacher, be made explicit by him. However, when I look at the two triangulation studies I do not find clear cut distinctions between description and values. I account for this in the following ways:

The published triangulations were accomplished during the early stages of the project, before we had much experience of the research strategy itself. Specifically they lack experience in asking non-leading questions and in encouraging, by our questions, the teacher to stay at a descriptive level. After a teacher's first order account, after seeing a tape-slide recording of his lesson, he has requested that the recording be paused at a particular place; the interviewer has talked with him about an issue that he has raised and then brings him back to the point at which the recording was paused:

Interviewer:	Did you want to say something about the talk with the boys about the tins? Have they got any comment to make about their problem as they saw it? Do you want to hear it?

Teacher: No, I can recall it. The tin and the rusting. The tin as a metal or the tin as a tin. Well, they were confused weren't they? I think the problem I had there was to get over the concept of a tin as a metal and tin as a container. That was their problem. Tin to them was a container, wasn't it? I don't suppose they would come into contact with tin in any other way.

Interviewer: As a metal?

Teacher: Not as a metal, because it's not used a lot is it; except for plating. I was just trying to think.

Interviewer: What you were trying to get from them was whether tin rusts.

Teacher: Yes, but they didn't know because they had no concept of tin, had they?

Interviewer: No.

There are several things to be said about this sequence. The interviewer's initial question raises the talk with the boys about the tins only on the initiative of the teacher who has specified the point at which the recording should be paused, this point being the incident with the tins; thus, the interviewer is talking in order to recover the topic that the teacher himself raised. The teacher's description picks out the topics of tin and rusting, the tin as a metal or the tin as a tin (can). He then gives his understanding: "Well, they were confused, weren't the? I think the problem I had there was to get over the concept of a tin as a metal and tin as a container". The interviewer prompts the teacher's memory with "what you were trying to get from them was whether tin rusts?" This is not, then, a leading question in that it is descriptive of the content of the event that the teacher has raised. Teacher agrees, "Yes, but they didn't know because they had no concept of tin had they?" This is the teacher's belief being raised. The interviewer says at this point, "No", not because he himself has understood the interaction to indicate that the pupils had no concept of tin [he himself believes that the pupils have a strong concept of tin,] but mainly that the teacher has not disambiguated tin (metal) from tin (can). However, he says, "No", at this point because he said otherwise he would have prevented and inhibited the teacher from giving his own particular interpretation. It is important, it would appear, that the truth value of a teacher's account is not made the first criterion for effective eliciting. The problem of eliciting overrides the interviewer's judgement about truth.

In Stage Two, the interviews with pupils, the sequence is:

Interviewer: Go on, say what you want to say. (The recorded section having been played back yet again).

Pupil 1: I don't think chrome is a metal is it?

Pupil 2: The magnet wouldn't pick it up, would it?

Pupil 1: No.

Interviewer: It wouldn't pick up chrome?

Pupil 1: No. It picked up copper.

Pupil 2: When we said the copper would rust, we were right. We've got some in the pond now and it is rusting.

Pupil 1: Yes, but I think Mr J said it is more corrosion than rust.

Interviewer: Yes, that's right - it doesn't rust chrome doesn't, and it isn't metal - that's what you are saying. Still can't get to the point ... What are you trying to tell Mr J about the tin?

Pupil 1: We are trying to tell him that they rust.

Interviewer: And what's he saying to you?

Pupil 1: I think he is trying to get into us that he doesn't think tin rusts.

Interviewer: He's trying to get you to say that tin doesn't rust?

Pupil 1: He's saying that them tins weren't tins.

Pupil 2: Yeah, and how we knew it was tin.

Interviewer: Ah, now that's good. So at that point. Yes, go on.

Pupil: At that point we did think they were tin.

Interviewer: So what sort of sense were you making of what Mr J was saying?

Pupil 1: ... Well, he kept saying that tin didn't rust and we kept trying to say to him that tin would rust.

Pupil 2: Then he said look it up.

Interviewer: Did you manage to make Mr J understand what you meant by tin?

Pupil 1: Not really, did we?

Pupil 2: I think we understood that we thought it was tin because it was called tin, I think he understood that. I suppose that was why we said tin would rust. I think he knew that we call that tin and that was tin, thought that was tin.

This is a complex section where the interviewer is trying to represent as accurately as possible the teacher's account by posing statements of the teacher as questions to the pupils to get them to give their accounts. The encouragement of the pupils to give their account overrides in priority a concern for eliciting 'right' answers about the original event. "Go on say what you want to say" is said after the third replay of the section which the teacher has originally selected. The boys reconstruct what they have been doing, describing the experiments that they were involved in. Also, trying to recall as in "But I think Mr J said it was more corrosion than rust", the teacher's replies and interventions in their experiments. Just as with the point where the interviewer agrees "no" that the pupils don't have a concept of tin rather than contradicting the teacher in this account where the interviewer says "yes that's right, it doesn't rust, chrome doesn't and it isn't a metal" he is contradicting his own scientific knowledge to recount "That's what you were saying". The interviewer at this point is trying to get the pupils to make the reciprocal account to the first order account of the teacher, that is to test out the teacher's account with the pupils. At least he gets a response through asking a leading question "What are you trying to tell Mr J about the tin?". However, it is only leading in the sense that it leads back to the teacher's first account and to the topic originally raised by the teacher and the interviewer is still acting as a go-between trying to retain the original force of the teacher's first account.

Later, at the point where the interviewer says "Ah now, that is good ..." the interviewer's own enthusiasm comes out because he feels he is beginning to make sense of what went on initially; this has overriden his sense of the principle that one should act as a non-evaluative go-between. Eventually, at the end of this sequence, the point where the interviewer asks whether the pupils manage to make the teacher understand what they meant by tin, the second pupil makes it clear that the problem was one of terminology -

that of "tin" and "tins". Having clarified the pupils did have this distinction, the interviewer could take this knowledge back with him when he made the second order interview with the teacher.

In Stage Three, the pupils accounts are played back to the teacher and the teacher says:

Teacher:	I think they are a bit confused personally.
Interviewer:	Yes, yes. What's their confusion?
Teacher:	Well, I think it is partly due to the fact that they haven't got the concept of the tin, the coating of tin is almost infinitesimal, so thin. They are probably thinking it is quite thick. I would want to get round to scratching it, this is what I would lead up to. They don't seem all that clear. I think the problem is putting it in a form which they understand. You felt that did you? (Addressed to the interviewer).

The teacher, within the second order, is expressing his beliefs and values about the pupils' account, rather than describing the original lesson incident. The crucial point, then, is that ideally the fullest eliciting of beliefs and values should be encouraged at the second order accounts. It seems to me that it should be possible by carefully framing questions to the teacher to reduce the expression of values in first order accounts to allow there to be symmetry between teacher's descriptions and pupils' descriptions. However, I wonder, even on inspection of much later triangulation, whether this is in fact possible during interview. The values are embedded in the descriptions.

Even with further experience and hindsight, this second much later triangulation does not have the ideal separation of values from description.

One incident within this lesson is chosen by the teacher as being significant and problematic. The teacher with a group of pupils are looking at specimens of pond water in polythene bags.

Teacher: I arrived three years ago. If you went down there three years ago, it was different from what it is now, the difference is quite obvious in fact you notice the difference, yesterday, even though you'd never been there before you saw something new, you know, what it was?

Children: ...

Teacher: What are they doing all the way round?

Children: Making ...

Teacher: But there's something happening perhaps a little way away from the pond, which might be having effect on it, those houses, big houses. Very big houses - estate, you remember the big housing estate. Now you've got a nice, I don't know, what do you think?

Child: ...

Teacher: Yeah

Child: You know children system.

Teacher: But I think, the - supposing I was the, the ... builders and I said right I'm - I'm building right down through that field, what, what's your reaction to that?

Child: (Talking together).

Teacher: Yeah, but supposing I was a town person, I'd say I like, I like village life, so why can't I come and live in your village.

Children: (Talking in background).

Teacher: Yeah, I will because I'll be living in a modern house, because I want my modern houses coming all the way down, but why can't -

Child: It wouldn't.

Teacher: But the old village would still be the old village.

Child: Yes but unless you made the new ...

Children: (Talking together).

Teacher: Well is there anything wrong in that?

Child: ...

Teacher: Does that matter?

Child: ...

Teacher: Yeah but does it, does it?

Child: ...

Teacher: Well should we take any notice of what they say, I mean after all there are only a few villages, should we -

Child: They should ...

Teacher: But supposing, you see I mean supposing I'm living in London and I think well I want a nice place in the country, why can't I come out and move in that estate to get the ... bigger because ... village and then I could, I could go to the village pub for a drink and in the evening you know, sit round the pond on a Saturday afternoon, why not, why can't I?

On the first interview with the teacher he says:

Interviewer: I find that interesting.

Teacher: Well we went down to the pond actually when was it - on Wednesday, and as they say they all expected it to be lyrical and beautiful with the trees and with ducks on the pond, and in fact they described it with ducks on the pond, we'll go down and there will be reeds and ducks on the pond. Now I knew it would be a bit tatty down there and what I wanted was their reaction as soon as they got there. Now you got the reaction there, you know, their first thought was pollution and all the rest of it, so obviously it was guided, and their reaction was it was their reaction at the same time it was a reaction I was expecting and wanting. And in fact you notice I think when you look at that particular section a couple of times there were, it's guided quite strongly, at one stage it changes away from the pond, it goes onto the village.

Interviewer: Yes right.

Teacher: And in fact there's one little bit there where Allison I think, obviously thinks I'm still on about the pond, and she, the effect is going to be that rubbish is going to be thrown in the pond and so on.
If they wanted to continue that fine, it would have continued but the others picked up very quickly that it was going to have an effect on the village itself.
Now whether there was too much leading and feeding there.
What do you think from ...

Interviewer: Well you shifted from sort of observing the specimens, making notes about that, to ...

Teacher: Yeah we had.

Interviewer: To actually moving onto a sort of ethical problem, and (both talk) ... that change of tack seems to have thrown that ... quite a big girl.

Teacher: Big change wasn't it?

Interviewer: Yes a big shift and different sort of talk ... much more of a discussion of course, then, than before where you ... information about particular live creatures and plants.

Teacher: But do you think the, looking at it from outside, that the change was too abrupt?

Interviewer: Well it didn't seem to be for most, for well for four of the girls ... but we only in fact heard, how many speak two or three?

Teacher: Well the whole thing changed as you say from looking at the water to looking at the pond and the problems of looking at the village, and the problems of encroachment on the village.

Interviewer: Yes. I would have thought it's always fairly difficult to make such big, sort of topic changes; you ... you know even though they are connected up. I mean the bags, and jars with these specimens in still there ... (both talk) the whole sort of context is one of observation and note making about specimens.

Teacher: I think this is the danger when you, the big danger when you've got an idea in your head you see pollution was the obvious thing we were looking at. But there is the danger that you rush on too quickly and I think perhaps there's got to be a lot more time spent on those specimens, I would hope to be able to come back to them, spend a lot of time on those specimens. But at the same time, you know, I think we want to be looking at the wider thing as well.

Interviewer: I think you did bring that topic forward yourself quite strongly, I mean it wasn't their own independent reasoning ... that led them on, I mean, most, how many of them, three of them at least know what you were getting at. But they didn't actually shift the talk from

the specimens to wider problems
of polution and so on.

This is much later in the Ford project, towards the very end; the accumulated trust shows in that the interviewer himself expresses his own ideas quite freely to the teacher as if he feels that they are elicited to get the teacher's responses to these ideas. The interviewer/observer no longer - as he did at the beginning of the project - feels that the teacher will be threatened by his honest accounts. The teacher now gives forthright replies and even raises issues for the observer/interviewer for response. I feel that this sort of relationship in one outcome of the project; the relationship between the central team researchers and the teachers. That is after the teachers had done sufficient research on their own teaching and to an extent had become self-evaluating, their accounts no longer have to be delicately prised out by the interviewer. The teachers are self-critical and do not become defensive about the topics that the interviewers raise. The teacher, pupil, and observer's accounts become more congruent as the teacher becomes more self-aware through self-monitoring.

When the section that the teacher has selected is played back to the pupils, this is the event (evidence), the recording goes:

Teacher:	Supposing I was the (Wates) Builders and I say "Right, I'm building right down through that field", what ..?

The girl indicates she wants to say something and says:

Girl:	I wasn't talking about that point, he started talking about something behind it, the houses have taken me right off the subject and then suddenly he changes right back.

Interviewer: Does that make you feel sort of uncomfortable ... or what?

Note the hesitancy and lack of clarity here. As the interviewer I would account for this by saying I was trying not to make what was obviously a leading question but trying to raise a question that was based upon the issue raised by the previous speaker, that is what I took to be the changing subject. The lack of clarity in this formulation leads to misunderstanding so that the next speaker, the girl, says "Well it does spoil the village life". which is not the topic that the interviewer hopes to elicit further comment on. The interviewer says "No what he has just done, taking you off the subject". He has to specify explicitly at this point what the topic is that he perceives the first girl to mention.

Girl: You don't really know what you are meant to be doing.

Interviewer: Yes.

Girl: ... at the time.

Interviewer: Sorry? Say that again?

The interviewer asks her to say it again because he was not sure whether he heard it.

Girl: You don't know what you're meant to be doing at the time, if you're meant to be talking about the pool ...

The second girl continues the sense of this:

Girl 2: ... pond or the village life or what.

Interviewer: Oh, you don't quite know how to respond sometimes to his questions. Did you feel that that time then?

Girl: Oh yes.

Girl 2: Yes.

Interviewer: Why are you ... you know, how much ... how much do you think you have a chance to direct the way in which the conversation goes in this bit you've just seen?

(Slide on the screen).

Interviewer: How much can you say about the things you want to say?

Girl: I more or less said all I wanted to say.

Girl 2: If you want to say something you just say it, you know.

Interviewer: What? You mean you can just sort of chip in and ..?

Girls: Yes

Interviewer: So there's no ... you don't feel as if Mr E is sort of directing you a bit too much?

Both girls: No.

Interviewer: Now you always get - always get a chance to say it?

Girls: Yes.

Interviewer: What about this little bit we've got to now where he changes to start to talk about the buildings and that. Did you want to talk about that?

Girl: Well no, not really. Well we just wanted to talk about the samples more.

Girl 2: Hmm. He went to William P to get the samples. We weren't going to

go around the outside, looking
what's on the outside. We go to
the pond, we're meant to look at.

Girl: Yes.

The girls here, then, are contradicting themselves. They are protecting the teacher from the intrusiveness of the interviewer's questions about whether they can say what they like, to which they answer 'yes' and yet they answer that they did not actually want to talk about the effects of house building and this emerges from the section where they say 'the teacher should change the subject'. On playing back some of the pupils' account to the teacher some of the comments were as follows:

Interviewer: Well, yes, well then another thing
they raised was you know that part
where you were talking about the
specimens, and then you
talked about the pond that they
visited, then you went on to talk
about the housing, the Wates
development in ... They said
there was ... that when you changed
to start talking about Wates
housing that they got confused,
they didn't know at that point
whether you were supposed to ...
whether they were supposed to be
concentrating on what they'd been
doing about the pond with samples
and so on or about the ethical
problem that you raised about
housing in ... in the locality.
And - and you know what's ... it
seemed to me, I mean the way I
interpreted it was something like
this: that - that things were going
quite well, that you'd gone through
the discussion of the samples, it
then got (that) to their experience
when they were around the pond,
and I felt maybe that you went a
little bit beyond the information
that they had, and started discussing
something at a slightly higher
level than they were capable of?

Teacher: You know, I think the point that ... the part that I noticed most of all is that - the pollution thing I think was important, that we got to the stage - the pond was polluted, I think we could ... it was within their experience to say that this might have something to do with the housing which is developing around the pond. But then I think it's as I was saying before, this questions of stepping in with both feet and going on beyond, and I think there is a tendency to get carried away. You think yourself of the ethical problem, and think well there's a good source of discussion there, and move it along, the discussion then starts ... it started to sort of flounder a bit at one stage because as you say, I think it was Alison, I think, didn't really realise what we were talking about, or what I was talking about and she was still ... to the pond, while I was developing another way.

Interviewer: Yes.

Teacher: Hmm. Yes I think this is a - a pretty common error that I make actually, it happened with another group - the same sort of thing - developing along ethical lines. Hmm. I don't think I intend to when it starts out, but something comes up like that and it seems the discussion could develop quite well. What I've got to learn to do is stop at their level. I think it's a very valid criticism, if that's one they made ...

I think that the second order of account, the teacher's account of the pupils' account, tends to focus more on the teacher's values rather than a description of the original event. In other words the teacher focussing on his values becomes reflective about the effects of his actions as accounted for by the interpretations of the pupils. I would feel in the triangulation that it had not been effectively accomplished if the second order accounts by the teachers continued to concentrate on the original event rather than the pupils' accounts. However, in the teacher's first order accounts, as has already been mentioned, although values get more than a mention, they mainly concentrate on the description of the original event. This movement away from the descriptive to the reflective is a gradual way of getting reflectiveness in the teacher's account.* The interviewer has to check the participants' reconstruction of the original event before he can as a go-between to ask questions which are based upon the first participants' account of that event. At this point, when the participant is asked to reconstruct the original event, tape-slide recordings are of great value. To go back to the teacher with a tape-recording of the pupils' accounts within hours of the lesson taking place, doesn't allow the teacher to have time to absorb the event into his own experience - his personal history. The interviewer would have to fill in some of the goings on to make sense of the talk with the teacher. We found within the project that a replay of tape-recordings so soon after the event was interpreted by the teacher, especially in the initial stages of the project, as a case of pupils' accounts against the teacher's. They took it as a confrontation. The tape-slide recording - the sections selected by the teacher actually stopping the machine at points 'of interest to them' because the images are intermittent the person watching the replay has to concentrate on the talk in order to make sense and fill in the information between the images. The account given by the teacher or any other viewer is based upon the work he has done in filling in the information and this in itself is based upon his beliefs and values about the situation. When a number of these accounts are collected, very interesting and frank group discussions ensue. However, with video-tape recordings of the events, the viewers tend to concentrate on non-verbal communication signs, on ideosyncratic features of the person's activities, not so much on the talk; the continuous images of video are self-evident. They are not questioned, they seem to fill in all the details of the event themselves and can be taken as the 'real event'. They tend to threaten the self-image and self-esteem of teachers. far more than the less rich information from a tape-slide recording.

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*The pupils' first order accounts are reflexive. The pupils are necessarily observers and interpreters of the teacher's actions, whereas the non-self-monitoring teacher does not begin to test his assumptions or habitually, interpretations of the pupils' responses. The non-self-monitoring teacher's accounts are not reflexive. In the example of the second triangulation, however, the teacher is reflexive.

The collecting of accounts by witnesses to an event followed by the feeding back of at least one of the accounts to other participants for comment, both on the other's account and to compare with their own account, - triangulation - has been found to be a useful research strategy within the Ford Teaching Project. The symbolic interactionist, Austin/Searle idea of the speech act deriving much of its meaning from context, illocutionary force and uptake and response to response, underlying the attempts to accomplish a triangulation.

NOTES

1. A.V. Cicourel Cognitive Sociology, Penguin 1972, p. 128.

2. A.V. Cicourel, Basic and Normative Rules in the negotiation of Status and Role, D. Sudnow Studies in Social Interaction, Free Press 1972, p. 253.

3. H. Garfinkel, Studies in Ethnomethodology, Prentice Hall, USA 1967.

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7. J. Elliott and C. Adelman, "Reflecting Where the Action Is", Education for Teaching, November 1973.

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11. John Elliott and Clem Adelman, Teachers Accounts and the Objectivity of Classroom Research, London Educational Review, Vol. 4, Autumn 1975.

12. J. Elliott and C. Adelman, Stranger in the Classroom, Ford T Project, CARE, University of East Anglia (p. 11).

The term 'triangulation' as used by Webb et al, refers to the cross checking of quantative data. In this article 'triangulation' refers to the eliciting of accounts of interpretations of events, both as topic and resource, to assist the researchers' comprehension of the event.
E.J. Webb, D.J. Campbell, R.G. Schwartz, L.S. Sechrest Unobtrusive Measures, "Non-Reactive Research in the Social Sciences", Rand McNally 1966.

EARLY LESSONS LEARNED TOO WELL

M.J. Willes

Abstract

A consideration, in the light of the Birmingham system for analysing classroom discourse, of the interaction of young school pupils with their teachers was undertaken in the expectation of finding evidence of the gradual acquisition of the rules that govern such interaction. It was hoped to make some contribution to understanding the processes by which sociolinguistic competence was acquired. The effect on the enquirer however was a suspicion, which grew with experience, that she was making wrong assumptions and asking wrong questions. Children seemed to perform in the way teachers expected of them very rapidly. The situation of the classroom was of such a sort as to facilitate that learning. The similarities between the classroom interaction in these classes of very young and inexperienced pupils and that of the primary classes which provided the data on which the Birmingham team drew was very striking indeed. The doubt remains whether this lesson is not in fact too well learnt, and whether the interaction teachers promote and expect is not a very limited and stereotyped learning situation from which escape, though certainly not impossible, is difficult.

1. INTRODUCTORY

The subject of this paper is a partial and selective account, with illustrations which I have tried to ensure are not unrepresentative, of some children's early school experience. The period of observation from which the description derives was undertaken with a set of expectations that seem to me, even with hindsight, not unreasonable, even though, in the event, most of them were not borne out. From the mis-match between expectation and event it seems to me that a number of considerations arise that deserve discussion. Some of them point the way, I shall argue, to generalisations that are interesting because they are of wide applicability. This in turn, prompts the objection that similar observation should be undertaken in a variety of schools. I think it should be, and that such an exercise would be productive.

Let me first outline the conditions in which this observation was done. In the first three weeks of September 1974 I was able to spend a substantial period of time in a local Infant School. The school serves an estate that includes private and Local Authority housing, so there is some social mix. (It was not, however, chosen for that reason). The school is untypical in that it has a small well-established nursery, which takes pupils from the age of three. Children attend the nursery for half the day. At the beginning of each new term the five year olds are transferred from the nursery to the Reception Class, Class Five. There they are joined by others of the same age who may have attended a nursery or a playgroup elsewhere, or who may of course have had no such preparatory experience. The nursery children who are to transfer, spend a part of each of several days in their new classroom before they enter for the whole day. New children entering the school for the first time are asked to come on successive dates, accompanied by parents. The mother (or, in Asian families, the father or a male relative) is made welcome and invited to stay as long as he wishes. Teachers are able to give the newcomer a great deal of attention. They escape that recurring nightmare of the Reception class teacher - confrontation with a large number of bewildered, upset children, all demanding attention at the same time. Much thoughtful organisation has gone into these arrangements, expressive of a recognition that, for a small child, starting school is a momentous, and often an alarming experience. Everything is done to assure the children than they are not rejected, that the parting from home and mother is temporary, and that starting school represents promotion, and is an experience to be enjoyed. (Crying and distress are quite common, for all that). The school enjoys a high reputation locally for its liberal progressive spirit. The Head Teacher and her colleagues gave me every assistance and encouragement in their power. The opportunity to record early experience of classroom language seemed unusually favourable, and I set myself to assemble as representative a collection of recordings as I could.

Of course as the observer I could not avoid being part of what I observed. It was in my interests to be as little obtrusive as possible, and I deliberately refrained from establishing more than a minimal relationship with teachers and pupils. Experience in observing students without attracting the attention of their pupils had given me useful practice in that sort of self-effacement. Except on one occasion, of which I shall have more to say later, I do not think my presence, or that of the tape-recorder, made more than a marginal difference to the text. However, in another sense, clearly the preoccupations of the observer cannot be anything but a critical factor, and it is these expectations with which I started that I propose to outline now.

2. INITIAL ASSUMPTIONS

This is the point at which to acknowledge an immediate and heavy debt to the work done here at Birmingham on discourse, and now available in published form, Sinclair J.McH., Coulthard R.M., *Towards an analysis of discourse*, London 1975, and to the predecessor of the book, *The English used by Teachers and Pupils*, 1972. This study can be seen as an attempt to put to exploratory use the tools developed by the project team. Their model of classroom discourse is very much a text-based model, and the texts from which it derives were assembled, for the most part, in Primary (not Infant) schools, and from lessons of a traditional kind, where the class was the unit of organisation, and the teacher acted out his traditional role, at once the organiser, the chairman, and the principal source of information. The decision to choose that as the typical, central, teaching situation rather than, for example, a tutorial, a coaching session, a lecture, or a series of small-group activities, supervised by a teacher who retains a right of instant intervention, must be supposed an intuitive decision. It is one that most people would concur in. In fact it is very difficult to challenge, in any convincing way, the belief that lessons of this sort have a kind of centrality, and constitute a norm, in relation to which other sorts of learning situation have to be defined. This is not to say that the norm meets with everyone's approval. On the contrary, adverse criticism of this sort of teaching is very general. Group activities are thoroughly approved by those whose function is to provide the initial training of teachers and to advise them in the schools. The result has been to change the position of the furniture in many Primary classrooms while leaving traditional classroom teaching a prominent part of the experience of virtually all children. All pupils have, for much of their working life, over a formative decade, to take from the teacher information, instructions, and cues, to answer as he expects, and with the expected brevity, and to look to him for the indication that they are performing satisfactorily. It is a game with rules. The work of the Birmingham team has made the rules explicit and has made available a mode of analysis that permits the exploration of particular games and particular players. I began work with the assumption that the rules of classroom discourse, like those of any other game, have to be learnt by those to whom they are new. Learning the rules must constitute a signficant step forward in sociolinguistic competence. Since tne rules are quite complicated I expected that the learning of them must take place over an extended period of time. There must be discernible stages in learning. I hoped to find some individuals who learned more slowly than others, and some teachers who expected to make clear to pupils, carefully and repetitively, what was expected of them. I anticipated, though naturally I hoped my expectation would not lead me to force the discourse into a pre-determined mould, that in the early weeks of schooling the talk between teachers and pupils would resemble that between a mother and her pre-school child. Only later, I surmised, would it begin to resemble classroom discourse and to be analysable as such.

3. EXPECTATION CONTRADICTED

Within a few days the routine of the classrooms became familiar, and it became apparent that there is a degree

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of mis-match between my expectations and the reality of the discourse, some considerable part of which I was recording. In one respect there was not mis-match but contradiction, and I should like to start with some consideration of this. I had expected that these young children would be encouraged to engage in games of make-believe, and so indeed they were. If they played "at schools", assuming the roles of teacher and taught, I might gain some insight into their perception of the teacher-role and the pupil role. I expected that in their play would be evident an overtly authoritarian teacher and pupils apparently docile but intermittently and inventively rebellious - the stereotype of the classroom which is a staple of certain sorts of children's fiction, and which endures, with astonishing hardiness, the processes of social and educational change that have made it an archaism. Certainly the children engaged in make-believe games. They dressed up, enacting adult roles. They played at travelling by bus. This was a great favourite. It entailed arranging chairs in a row of pairs. The driver had a wooden steering wheel and a wooden box in which a stick would be manipulated as the gear lever. The conductor had a cap and a satchel with a ticket punch. There were games in which pedal tricycles became motor bikes. There were chasing games, not of cops and robbers but of Z cars. I was forcibly struck by the very brief duration of these games. Each would have been measured in seconds rather than in minutes. With a dreamlike rapidity a driver became a policeman and a passenger a fugitive. There was little verbalisation, and much noise. Play seemed unspontaneous, and heavily dependent on adult expectation expressed in the ready availability of steering wheel, policeman's helmet, crash helmet, and so on. It simply was not the case that odds and ends were transformed by the pressing claims of imagination. At no time did these children play at schools. They did not represent to themselves the situation in which they were, and I could gain no inkling of their perception of what it is to be a teacher. They represented in some degree the situation of other authority figures, policeman and bus drivers. Insofar as they did this what they perceived was the enviable right enjoyed by these people to make loud, splendid, and unrebuked noise! At three and four these children were, like Luria's backward twins at 5-5½, 'unable to detach the word from the action, to master orienting, planning activity, to formulate the aims of activity with the aid of speech and so to subordinate their further activity to this verbal formulation." Plainly I had been looking for the wrong thing. The sort of evidence I was seeking would be evidence of a more advanced stage of intellectual and linguistic development than is to be found in normal 3 and 4 year olds. I do, however, think this was a useful mistake since it provides a motive for re-phrasing the question in a way that is more specific and, I think, more interesting: *at what stage* of their development, cognitive and linguistic, do children begin to represent to themselves the roles and relationships current in the community? The most cursory examination of the oral and written literature produced for children reveals a set of assumptions about the answer that seems wide open to doubt. It is not surprising then that observation of children listening to stories told or read leaves the observer convinced that for many of the children much of what they hear is totally without meaning.

4. EXPECTATION PARTIALLY MET

I should like now to turn to the recordings I made and to some areas in which expectations and evidence were mis-matched rather than conflicting. I should explain at this point that the contrast between the experience of the youngest children I observed (newcomers, aged 3, to the nursery) and the oldest (newcomers to the Reception Class, aged 5) was rather in the assignment of time to different activities than in the nature of those activities. From the beginning, routine administration, involving the class as a unit, group teaching, (i.e. units of 10-12) small group teaching (3-4) and unobtrusively supervised play, were part of the experience of everyday, and occurred in a recognisable order which the children came to expect. In the nursery the last was highly valued, and was a substantial part of each session. In the Reception class the time allocated to it diminished considerably. It was, naturally enough, usually noisy. The teachers took the opportunity it afforded to talk to the children but inevitably my recordings of these conversations are fragmentary, poor in quality, and not really representative of what was going on. If my recordings represent much the other sorts of classroom activity, this is not wholly unfair or unfortunate. While I am sure that the decision to give time to play was a principled decision, a different kind of seriousness was attributed by the teachers to administrative procedures and teaching activities. This was where I had supposed that the youngest children would not know how to play the role of pupil, and that teachers would teach them. This was where I thought the teachers would approach their young pupils with a recognisably different set of expectations from those of teachers of older children. Not it is certainly the case that on some occasions the most natural explanation of what happens is that the children simply do not understand what the teacher wants them to do.

Here is an example, taken from a session in which the children, under the direction of their teacher, sing some of the songs they know. They are invited to choose, but in fact their choice is very firmly directed.

Teacher:	Can anybody remember a song?
Pupils:	Yes ... yes ... yes ...

In this context the expected, 'right' answer is a song title. What would be in another situation a good answer enough is not, in this one, well-formed discourse. Whether they miss the directive character of the question, or whether they are (as I think) operating a rule that could be expressed like this: "When a teacher asks you something you must give a positive response, because that is what she wants", neither the recording nor the analysis will tell. Anyway, from the babel of sound, the teacher picks up 'Jack and Jill', and this is her evaluation:-

Teacher:	Not 'Jack and Jill' ... a proper song ... not a nursery rhyme ... a song.
Pupil:	'Wide wide as the ocean'.
Teacher:	C'mon then. Ready. Wide arms.

Here she classifies songs as "nursery rhymes" and "proper songs". Since the children have only just finished "Baa baa black sheep", this classification must be interpreted as "those that were a concession, just to warm up" and "those I really think we should be singing". The lesson that a pupil must guess from occasional and often contradictory hints what the teacher has in mind, and take that as his directive, is easily given, and as you see, quickly taken. The following directive is in effect a positive evaluation. The song (it is in fact a Sunday School chorus, with an action accompaniment) is sung.

Teacher: Good (emphatically extended).
What else can you remember?

Again there is a babel of noise, and on that noise the teacher imposes a prompt:

> Who had a poorly dolly?
> Where's her dolly? C'mon,
> let me see?

This is a signal for the song, with actions, 'Miss Polly had a dolly'. As they finish, the teacher notices one non-participant. She directs him:

> Ashley, will you join in with us please?

Ashley turns round, a little sullenly. The form of the directive is impeccably polite. It seems paradoxical however to say the command is softened. The teacher's disapproval is conveyed through a degree of politeness in excess of that proper, in the teacher's judgement, between herself and an inattentive little boy who wants to go home to his dinner. (It is the end of the morning). In that discrepancy lies her disapproving evaluation of his behaviour - though I strongly suspect this is lost on him. Then she turns to the others.

Teacher: Who rides on a pony? Who rides on a pony?

There is a chorus of 'me!' 'me!' as if the children, understandably at a loss, were again operating the rule that teachers require positive answers. However, that won't do, and the teacher prompts:

> In the song who rides on a pony?

Nothing but a renewed babble of voices, so she tries again:-

Who *can* ride on a pony?

On the ensuing noise the *teacher* imposes the answer she wants "A cowboy!" and at her signal the children sing 'On my pony see me ride'. Here, certainly, these young children *do* seem uncertain of what the teacher intends them to do. Her very elliptical directives have to be interpreted by means of non-verbal clues, and the exercise simply is too difficult. The surprising thing though is the typicality, in classroom terms, of the discourse of the teacher and these young children. The Birmingham system for analysing classroom discourse can be applied to it with no more then minimal explanatory annotation: This is so regularly the case that illustrative selections can be made almost at random.

Teacher: What d'you say, Julie, when somebody gives you something?
Julie: Thank you.
Teacher: *Good*!

The following example is typical of many. It is an excerpt from 'family time'. Each of several teachers and assistants in the nursery assembles her 'family' (a group of 10-15). They have milk and apples. There is an opportunity, deliberately made, for interaction between teacher and pupils. Often a story is used to provide a common talking point, but not here.

Teacher: Darren's gone to his new class in school.
Pupil: My sister ...
Teacher: Your sister - has she gone into a new class or has she gone into a new school?

Pupil: New school.
Teacher: She's gone into the Junior School?
Well isn't that lovely!

Here the pupil's contribution is treated as if it were an answer to an unspoken question. We shall never know *what* we were to hear about the pupil's sister, because it is made the starting point for another question, so phrased that only a very brief reply is possible. A paraphrase of the reply, by the teacher, serves as evaluation, and that positive response to the pupil's answer is reinforced by a comment which ostensibly receives the *news* with enthusiasm, but is intended as a commendation of the *pupil*. The exchange continues:-

Teacher: She's got a new uniform ... she's got a new jumper? or has she got a cardigan?
Pupil: Cardie.
Teacher: Lovely. Lovely!
Nigel, would you like a piece of apple? Anyone like any more milk?
Anyone want a piece of apple? No?
Alright. Wouldn't you like to drink yours up like Jason? Would you like to drink your milk all up like Jason's doing?
Anymore? Good girl.
You've got new shoes have you?
What colour are they Jutinder?
What colour are Jutinder's shoes?
Can you remember?
Can you say that? You say it then.
Pupil: Black.
Teacher: Black. Good girl.

The teacher establishes her dominance through the information she offers, the questions she asks, the directions she gives. The pupils respond, minimally, and the evaluation is unmistakable, and often is repeated.

Of course there were occasions when pupils lapsed into self protective, thumb-sucking silence. So there are in classrooms of older pupils, and the tape recorder does even less justice to them than the observer does. It also happened that some of these young pupils rejected the whole situation out of hand and cried disconsolately, as if nothing but their own angry sense of being abandoned and rejected had reality for them. The teachers had of course long ago evolved a strategy for dealing with this. One of them would pick the child up, and cuddle and confort, acting as a substitute mother. Everyone else ignored the situation completely. Once the children had 'settled' teachers consistently spoke as if children knew how to behave and respond as pupils. If they did not get an expected and acceptable response, they would interpret a look, a gesture, or silence as if it were at least an attempted response, and evaluate it. If the response were noise, they would impose on it a prompt, or even an answer. Given that the children need, and want, adult approval, and that this desire is strong and compelling, this is a very effective way of indicating what is expected. Children learn almost immediately. Often they seem to learn in the course of a single session. Those who enter Reception Class from nursery already have a set of expectations of their teacher's behaviour and their own fully developed. We are all so accustomed to the notion that complex kinds of behaviour are mastered progressively over a period of time, and, further, to the notion that young children, for whom generally applicable instructions are without meaning, will necessarily learn slowly, that it is natural to bring these expectations to learning to participate in a particular sort of social interaction. The rapidity of the process of initial language acquisition has been so much insisted on that it now evokes immediate scepticism. Where the investigator's presuppositions include a consciousness of the difficulty of a task however, he is very ready to be impressed by the accelerated speed at which it is normally acquired. This was my experience, and again, what I learned seemed to me negative but useful. I do not think one need look for discernible stages in an extended process. Where motivation is compelling, and circumstances highly favourable, (and both these circumstances are present in early schooling) the kind of sociolinguistic competence required of a pupil is learnt very rapidly.

If it is true it leaves us with an array of questions, several of them of great interest, and I should like to examine some of these.

5. QUESTIONS ARISING

What happens when the teacher's expectations are not fulfilled?

There were times when the children were reluctant to engage in any one of several activities from which they were required to choose. Teachers had strategies for dealing with this.

Pupil: (Whispering) We'll play in the windows.
Pupil: Yes - go on. (A whispered game is then in progress).
Teacher: They're busy aren't they. They're very busy. Look at Martin. (Noise breaks out) ... Now don't be silly. No more nonsense. Oh what's that you've got there?

Here the teacher's is a supervisory role. The whispering children may very well be up to no good. It is by no means certain that they are, in the classroom sense of the term, "busy" - that is legitimately occupied. The teacher's confident statement that they *are*, seems to me to have several functions. It signals to them that they have been noticed. It signals to the pupil who is with the speaker, to the speaker herself, (and possibly to me) that she has judged it best not to signal to the whisperers that they had better not push their luck. Only quiet misdeameanours allow such indirect handling. Noise meets with a sharp directive to desist, followed immediately by a question, the function of which is to distract. A little later the same teacher discovered Ruth, standing by the easel, not painting. Here she coaxes her ...

> Teacher: I'd be glad of some paintings for my wall. Wouldn't you do some paintings for me Ruth? For my wall?

Here the school task is presented (and this is not uncommon) as service performed to please the teacher, and since most children do very much want to please their teacher, this is often a successful strategy. It may of course be argued that they already learn, too early and too well, that guessing what the teacher wants, and doing it, is the primary duty of a pupil, and my examination of the texts has certainly convinced me that though this certainly is a learning strategy, it is a narrow, limited one, that its serviceableness is slight, and soon exhausted, and that it visibly inhibits the development of a useful repertoire of various learning strategies.

These were ripples on a smooth surface. In the Reception class, a bland gentleness of manner was the rule, but the teacher had to cope with one persistently disobedient five year old boy. He was determined to challenge her authority; she was determined to assert it. She succeeded too, at least temporarily, and she did so primarily by verbal means. The child in question, Jutinder, understood and spoke English very imperfectly, and I was puzzled at finding that his slight and inaccurate knowledge of English phonology was not recognised for what it was. The situation was perceived by me as a problem in aural comprehension, by the teacher as a conflict of wills.

> Right. What does that say?
> (Unintelligible answer)
> (Angrily) Jutinder, Jutinder.

However, worse was to come:

> Put your legs down. Jutinder -
> don't make me cross.
> (Unintelligible reply)
> Read the story first love.
> 'Two dads are going to the park'.
> You write it please. Don't get
> off that seat till you've
> written it. Are you listening?
> Cos I shall get cross if you're
> going to be silly. You be a big
> boy now please. Show me what a
> big boy you can be ...

The threats here are intended to be interpreted as warnings - but Jutinder is deprived of the freedom to move about and to choose his activities, which is the norm of this classroom. He learns that failure to conform incurs disapproval and loss of his new found standing. In fact this threat was either ineffective, or, more probably, not understood. Jutinder continued to make a great deal of noise. He broke things. And he found himself directly confronting his teacher's anger:

> Jutinder sit down! Sit down.
> Put your book on the table. Put
> your book on the table. Now
> listen. If you're naughty again
> I shall have to smack you. Do
> you like being smacked? Well
> you'd better stop then or you'll

> get it. Come on. Do your
> writing. All the other children
> have done some writing and
> you're as clever as they are,
> aren't you? Are you clever?

The teacher is in fact extremely reluctant to smack Jutinder. She invokes a compulsion to do so if he does not respond to persuasion. She tried threats and coaxing. I was curious to see how real rebellion would be handled, and the teacher, who was much disturbed by the difficulties she was encountering, told me the action she had taken. Jutinder, had been lifted up and held close on her lap, treated like a baby, in order, as she explained, to ensure that he was restrained without being rejected. In this way was acted out the threat that had already been made - that only conformity would buy back his 'big boy' status. And the teacher gained the upper hand without relinquishing her professional stance of kindly and benevolent control. It is as if teachers start with a thoroughly internalised set of expectations about the sort of interaction and the kind of role relationships which are appropriate.

So strong are these expectations that they can altogether obscure the possibility that for a pupil like Jutinder they may be no more than partially accessible. These expectations on the teacher's part are not verbalised and in a sense, they do not need to be. Challenges like that which Jutinder presented are rare. Teachers are adult, confident, and on their own ground; they have institutional support for their dominance. Pupils are small, they are children, they are on unfamiliar territory. Adult dominance is the rule. Where it is resented and defied, that challenge is perceived as a source of legitimate annoyance, but certainly not as a serious threat. If, however, for practical purposes it is not necessary that the teacher should verbalise her expectations, yet there is one serious consequence of her not doing so. Those expectations remain assumptions, inaccessible to processes of appraisal and change. There is no sense in which newcomers to the educational system get, as the naive observer might expect them to get, a fresh start. Rather, they are cast for a role that has already been established in innumerable previous rehearsals. If this is generally true, it accounts for what has often been observed, the curious conservatism that is apparent in education, and it directs our attention to two questions, both of considerable interest. (i) Where do teachers get their expectations about appropriate role relationships from? (ii) Is it the case that the constraints inherent in the actual process of teaching and learning determine the character of classroom text?

There is a literature on the subject of teachers' perceptions of their role and on the related topic of the personality factors that are associated with success in teaching. It is there that a solution should be looked for. My experience of the professional preparation of teachers leads me to think that it is not in institutionalised training that these expectations are formed, but rather than the institutions reflect, and confirm in the individual student, society's assumptions about what teachers do, and what roles they assume. Students normally arrive having had ten years of exposure to the educational system of this country and to no other. Lacking any means for detachment or analysis, they are locked into it as securely as were those English speaking American teachers of Amerindian children who could only see their pupils contrary assumptions as deviant.

6. INFORMAL EXPERIMENT: GERARD LEARNS TO WRITE HIS NAME

The second question invited challenge. Are the constraints of the teaching and learning situation of so inescapable a kind as they seem? And does this account for the remarkably durable and persistent nature of the sequence initiation, response, feedback? The only check I could make readily and informally was by playing the teacher's part in relation to a five year old boy, engaged in a problem-solving task that was evidently a little too difficult for him. I wanted to discover whether it was possible in fact to give him what he seemed to need - prompts, suggestions, questions, encouragement, without either creating classroom text or studiously and self-consciously avoiding it. Interestingly enough, it seems to me that he and I did create such a text, that our text would not be readily analysable in the Birmingham terms, and that the pupil readily accepted what I offered, and made use of it in completing the task. Here is an excerpt: He and I sat side by side. He has to write his name, using a dotted outline as a guide. The pencil is large and unwieldy, the left - right direction unfamiliar. It is not easy.

Teacher: Now the next one pause .
Going the wrong way Gerard.
You want to go that way when you write.
Pupil: There! What do you do a straight?
Teacher: Well, I should do the curve first.
A curve like that and then a straight across there.

What seems to me different here is that the pupil evaluates his own work, with a satisfied 'there'. He asks advice then for the next stage. The advice continues:

A curve like that and then a
straight across there. Would
you like to go over it? pause
good ... now the next one
pause you've left one out
look. You've written those
two and left that one out.
Pupil: I'll do it in that space there.
Teacher: I think you could.

Gerard accepts that he had made a mistake and announces what he proposes to do in order to put it right. Having completed that manoeuvre, he seeks assistance again.

Pupil: Now ... I'll do a circle first,
don't you?

He perceives that a fresh stage has been reached, signals it, and seeks the reassurances of agreement.

Teacher: Yes
Pupil: And then a circle at the bottom?
Teacher: That's the way ... pause
Well, actually you need the
circle this side of the straight -
well ... perhaps you'd like to
put another one under. d'you
see the difference? ... pause
Now make it a little bit taller ...
taller than that ... wants to
come up here look - like this.
You follow with the dots now and
you'll soon see ... well done
Gerard.
Can you write anything else
besides your name?
Pupil: er ... no.

Now this was nothing more than a small scale, very informal experiment. It does, however, offer some interesting pointers. If Gerard could direct a piece of his own learning, asking for what he wanted from the teacher, and satisfied with his own evident success independently of her, then there is no reason to think other children could not. It would be hard to deny that Gerard, who in that excerpt writes his name for the first time, and who still has to master tag questions in English, knows very well how to use language to get information where it is needed and confirmation where he wants reassurance. He knows how to employ language heuristically and interpersonally. I think we should try to design situations that would challenge the exercise of this and other uses of language. I would like further to put forward this suggestion as one that would bear testing: that it is not so much the constraints of the actual processes of learning and teaching that determine the nature of classroom texts, as those other constraints, largely ignored in educational discussion, which society places on teachers, those of *safeguarding* by *controlling* pupils. Classroom discourse, that secures for the teacher a dominant role only momentarily relaxed, and impresses on the pupil passivity and brevity, really does not immediately recommend itself as anything but a blundering, limited and inflexible medium for learning anything. I suggest it is, for all its prevalence, a learning medium only incidentally. Essentially classroom discourse is a medium of a paricular sort of social control, it is a fact of our society, culturally transmitted, owing little to explicit and institutionalised forms of teacher training, and deriving from the teacher's function as custodian rather than from his function as educator.

7. CONCLUSION

In conclusion I should like to attempt to summarise what I think I learnt with the help of teachers and pupils, in those three weeks:

(i) I assembled a great deal of text, of which I cited some illustrative fragments. Of the material on tape I have transcribed about half. This amounts to some 110 closely written foolscap ms. sheets.

(ii) I was impressed by the rapidity with which children became pupils, fully conversant with their new role, and by the combination of circumstances that taught this effectively. There is a sense in which this rapid and (apparently) effortless mastery of a new role must seem remarkable to the observer. I cannot, however, escape the conviction that these lessons are learned too soon and too well. Teachers and taught alike seem to me to be locked into complementary roles that may, certainly, promote learning. But there is no reason to think they promote the best learning, or that they do not sometimes delay and impede learning. I think we can, on the evidence we have, and using the analytic tools at our disposal, support the contention that teachers provide the appropriate means for a step forward in the acquisition of socio-linguistic competence which children rapidly and confidently take. What I should like now to see asked is a series of further questions: in what circumstances can children take up alternative roles, for example the role of the self paced and self motivated learner? What other roles can they assume? Are these dependent upon the teacher taking up the initiative and if so, what sort of initiative? Ought we, in fact, to abandon the notion of a teacher role and a pupil role, each having language as a major mode of transmission and expression, and to think instead of a repertory of teaching styles, each having, as its complement, a learning style or learning strategy? The next step should then be to find ways of mapping these. It looks like a highly interesting piece of co-operative exploration, and so it could be, but I must confess it frightens me. We could not then comfortably retreat from the responsibility of making evaluative judgements. We would have to insist on clearly discriminating between the teacher's custodial and educative roles, and to admit that they may often conflict. We would have to acknowledge that to have a repertory of styles, and to make deliberate choices among them, implies an analytic consciousness of what it is you are doing, that teachers do not traditionally have, and (in so far as a teacher is a performer) perhaps for good reasons. I think there are reasons for concern, and that we should think carefully before we proceed further.

DESCRIBING CHILDREN'S LINGUISTIC DEVELOPMENT

Gorden Wells
University of Bristol

Abstract

A theory of language is outlined which emphasises the interactive nature of linguistic communication as the basis for the child's acquisition of control of the language system. It is hypothesised that differential success in the development of communicative competence is related to difference in quality and quantity of experience of negotiation of meaning in the shared construction of social reality; it is further suggested that such differences may be largly responsible for the 'linguistic disadvantage' which is the putative cause of the educational under-achievement of many children. The paper describes the way in which these issues are being investigated in a longtitudinal study of the language development of a representative sample of children, based on regular sampling of the children's spontaneous linguistic interaction at home and at school.

The aim of the Bristol Longitudinal Language Development Research Programme is deceptively simple: to describe how children learn to talk. We have set outselves two general questions to answer: 1. to what extent do all children develop language in the same way? 2. What environmental factors affect the rate and success of this development? In order to provide a corpus of data to answer these questions, over the last 3 years, we have systematically collected regular samples of spontaneous speech from a representative sample of children. The 128 children being studies, half of whom were aged 15 months and half 39 months at the beginning of the study, were selected to give equal representation to both sexes, four classes of family background and all four seasons of birth. Each child has been observed at 3-monthly intervals over 2, 1/4 year periods, and on each occasion, in addition to the recording in the home, tests of various aspects of linguistic ability have been administered under more standarised conditions in the Research Unit. The recordings themselves have been made by means of a radio-microphone, worn by the child, which transmits to a receiver linked to a tape recorder that is pre-programmed to record 24, 90-second samples at approximately 20 minute intervals throughout the day between 9.00 a.m. and 6.00 p.m. This technique has obviated the need for a research worker, whose presence would have contaminated the naturalness of the speech to be recorded; the lack of on-the-spot contextual information is compensated for by playing back the tape to the mother in the evening and asking her to recall, in as much detail as possible, the participants and activity for each of the recorded samples of speech. When transcribed and checked, these recordings, of which we have now made 1,280, provide the raw data for our study.

However, before one can analyse the data to provide answers to questions about language development, one first has to decide what one means by language. Although to the layman the answer may seem straightforward, linguists are by no means agreed on the form the answer should take. Consequently, what it is that a child acquiring language is said to be acquiring will depend to a considerable extent on what theory of language is espoused by the person conducting the research. Ten years ago, the dominance of Chomsky's transformational-generative grammar was so great that Halliday, a linguist, was taken to task by two psychologists for suggesting that different linguistic theories should "be regarded as appropriate to different aims rather than as competing contenders for the same goal" (Marshall and Wales, 1966, p. 185). And indeed, the papers collected in Smith and Miller (1966) did seem to suggest that there was general agreement that research on language acquisition should be concerned to study the acquisition of the rules of a generative grammar. This was the heyday of syntax; but the unanimity was short lived, and within a few years the same group of psychologists was criticising the narrowness of Chomsky's goals, "from which by far the most important linguistic ability has been omitted - the ability to produce or understand utterances which are not so much grammatical but, more important appropriate to the context in which they are made". (Campbell and Wales, 1970, p. 247). With the concern with appropriateness in context, came a renewed interest in semantics, and semantically based theories of language (e.g. Filmore, 1968; Chafe, 1970). Still more recently, it has been the pragmatics of language that has been the focus of attention, and various attempts have been made to incorporate the speech acts that utterances perform within the scope of linguistic theory (e.g. Searle, 1970), and also to include the structure of discourse at levels higher than the sentence (e.g. Sinclair and Coulthard, 1973). How then, should one describe what it is that a child has to acquire when he is learning to talk? Our decision, when in 1972, we devised the coding scheme for the analysis of our data, was that all these aspects of language - syntactic, semantic and pragmatic - should be taken into account, and that language acquisition should be seen as the acquisition of the ability to communicate through language in situationally contextualised conversation. Linguistic communication, we argued (Wells and Ferrier, 1976) is but one form of purposeful interpersonal behaviour and individual utterances are typically constituent parts of larger sequences of interaction, and are constructed to take account of the context, both linguistic and non-linguistic, in which they occur. In describing any particular utterance, therefore, an account needs to be given of its context and of the speaker's intended purpose, topic and relevant attitudes, as well as of the surface form in which these intentions are realised.

The way in which we see these components being related in the production and reception of a single utterance, is illustrated, in a simplified and schematic form, in Figure 1*. From the point of view of production, it is suggested that an utterance originates in the current state of motivation of the sender - the plan that he is currently pursuing - which requires him to interact with another person in order to achieve the purpose he has in mind. This purpose is, of course, related to the situation as he perceives it, and both purpose and perception of the situation are dependent on the internalised representation of the world that the sender has gradually built up on the basis of his past experiences. Drawing upon what is relevant in this past experience, the sender formulates a "meaning intention" which he wishes to be understood by the receiver. This meaning intention has three major components: a purpose that he wishes his communication to achieve in relation to the receiver; a topic to which his communication refers; and his attitudes both to the receiver and to the topic. The sender also pre-supposes knowledge and attitudes in his receiver which he can take for granted, both as a result of what he knows about him and in the light of the preceding conversation, if any. As a result, the message that he constructs is formulated to provide just that information which he judges will most help the receiver to arrive at his meaning intention at this particular point in time. If the message is to be communicated linguistically, it is then coded by the sender selecting, from the resources available to him, those lexical items, syntactic structures and intonation patterns that best realise his intended message. The resulting plan for the utterance is finally transmitted by the appropirate motor acts of speaking.

Comprehending an utterance is typically quite similar to production, for the aim of the receiver is also to construct a message - the message he judges the sender to intend. In doing this he draws upon a number of sources of information: firstly, his own past experience and current purpose lead him to perceive the situation in a certain way, thus predisposing him to expect messages with certain purposes and topics rather than others. Secondly non-verbal information from the situation, and shared information, built up during the preceding conversation, may also be available, providing further expectations about the message to be received. Finally, the utterance itself has its own internal structure which allows quite precise semantic, syntactic and phonological expectations to be set up and verified in terms of the sequence of linguistic elements of which it is made up. These various sources of information then have to be compared until a match is achieved and understanding is reached.

Considered within this theoretical framework, then, language acquisition entails learning how to produce and receive utterances in situational contexts. In very general terms, we see this developing out of the pre-linguistic communication that is established in the first year of life (Trevarthen, 1975; Bruner, 1975), through which the child learns to make sense of the world in which he finds himself (Wells, 1975b). Through his observations of the constantly recurring patterns in his environment and through information derived in relation to his actions, both physical and interpersonal, upon the people and objects in that environment, the child gradually builds up an internalised model of the relationships between people, objects and events and their characteristic attributes, and this model allows him to form expectations in terms of which to comprehend new experiences. Linguistic communication forms part of this environment from the beginning, as adults comment on the activities in which child and adult are jointly engaged; at first the child is only able to share in communication exchanges at a pre-verbal level and his messages are exclusively social in meaning. But this social experience of reciprocal vocalisation and turn-taking provides a framework of inter-subjectivity, which is an essential basis for the development of linguistic communication about the shared environment. This is obviously a cumulative process with certain features of utterances coming to function first as cues to the sender's meaning intentions, whilst others are still ignored. Gross intonational distinctions seem to be the earliest to achieve this status as signallers of the interpersonal functions of utterances; then specific words and simple grammatical patterns come to serve as cues to the topics of communication during the course of the second year, whilst most of the remaining grammatical distinctions are acquired during the third and fourth years of life. Put very simply, the child's task in learning to comprehend the speech of others is to make the match between the messages that he can expect in well-understood contexts, and the linguistic forms of utterances that are addressed to him in such contexts.

Learning to produce utterances, on the other hand, must involve somewhat different processes. Whereas the child can use expectations derived from previous experience to help him guess the meaning of speech addressed to him, and is not dependent on a morpheme-by-morpheme analysis of the input, the essential requirement for producing an utterance is that the meaning to be communicated should be converted into a temporal sequence of speech sounds, organised by grammatical structure. Taking for granted the ability to articulate particular sound sequences, the problem then becomes one of using those linguistic cue systems that are already functioning in comprehension to organise these articulations. In a sense, therefore, acquiring productive control of the formal linguistic systems can be thought of as developing strategies for realising atemporal representations of meanings through temporal sequences of sounds that have socially significant patterning. There are three factors that aid the child in this task. Firstly, the recipient of his message, typically the mother, is already predisposed to attribute meaning to his attempts to communicate, and with the support of intimate knowledge of his habits and interests and of the situational context, she will probably "guess" correctly on a high enough proportion of occasions to provide encouragement. Secondly, and closely related to this, mothers and other adults provide various types of feedback, both verbal and non-verbal, that are contingent upon the child's communications. Thirdly, there is another strategy upon to the child and that is that he may use segments of the utterances addressed to him as ready-made chunks in the construction of his own utterances, only later discovering the internal structure of such segments.

Clearly this general sketch of language development relies heavily on the belief that language develops on the basis of cognitive representations of experience and of matching the linguistic forms to expectations derived from this experience. Rapid development of language could be expected to be dependent, therefore, on availability of model forms, on the concordance between utterances addressed to the child and the expectations that he has already derived from his understanding of the situation, on the actual simplicity of the linguistic distinctions to be learned, and on the feedback of appropriate quality and quantity.

There then are a number of hypotheses to be tested on our data. But in devising our coding scheme, we decided not to gear it to specific hypotheses but rather to code all the syntactic, semantic and pragmatic categories that we thought would be relevant to testing these and many other hypotheses. Under the pragmatic heading, each child utterance is coded for the context in which it occurs, the purpose of the conversation of which it is a part and the function that it specifically performs in that conversation. In addition, the functions of preceding and following utterances by other speakers are coded, as are the appropriateness of fit between child utterance and preceding utterance and child utterance and following utterance. The semantic coding describes the state or event that is the topic of the utterance, and the temporal, aspectual, modality and manner modifications of that state or event. The way in which the utterance is modified to fit its textual context is described in terms of voice, thematic organisation and cohesion. Finally, the actual surface form of the utterance is described as a linear sequence of constituents at different levels. A typical utterance requires somewhere between 50 and 100 separate codings. (The full coding scheme can be found in the Coding Manual (Wells, 1973)).

At the time of writing, all the recordings have been transcribed and well over half have been coded, and the codings checked and transferred to computer store. We are now embarking on the phase of data analysis. This is taking two forms. Firstly, a description of the speech samples collected at specific age-points in terms of the frequency of occurence of specific categories and sub-categories. So, for example, we can say what proportion of children's utterances at a particular age have the function of question or refusal of a command; what proportion contain multi-clausal structures; what proportion refer to past and future as opposed to present events, and so on. We can also describe the relationship between these proportional frequencies and demographic variables such as class of family background, position in family, etc. Secondly, and rather more interestingly, perhaps, we can use the same data, viewed longitudinally to test the sort of hypotheses that can be derived from the general theory of language development outlined above. These are of two kinds: firstly, hypotheses about the order in which certain linguistic distinctions will be acquired, for example, that children will learn to ask grammatically well-formed Yes/No questions before questions beginning with 'who', 'what', etc.; and secondly hypotheses about environmental factors, particularly about characteristics of the conversations in which the children participate, that influence the rate of development.

To date, our results suggest that there will turn out to be a considerable degree of similarity between children in the sequence of their acquisition of the major semantic and syntactic distinctions, but that for particular sets of distinctions, there may be different routes to the same goal. As far as environmental factors are concerned, it appears that demographic variables, such as class of family background and position in family, are not strongly associated with rate of development, but that, as predicted, there is a much stronger association between rate of development and qualitative aspects of the child's linguistic experience (Wells, 1974, 1975a). However, such results must be treated with caution, as the bulk of the analysis still has to be carried out.

Our interest in language development is not restricted to the pre-school years, however, for we believe that the study that we are engaged in has, potentially, some light to throw on the vexed question of the causes of educational failure, insofar as these are related to language, and to success with which children are able to meet the linguistic demands and expectations of schooling.

Starting school involves a change from one social setting to another that differs from it in a number of ways: in size, in organisational patterns and routines, in the possibilities of one-to-one interaction, in the goals that are set and the means that children are expected to use in achieving them, and in the values that are put on different skills and competences. From all these points of view, what is central to the transition is a change in patterns of social interaction; and since this interaction is quite largely mediated through language, particularly in the school setting, the ease with which the transition is made will depend to a large extent on the child's ability to communicate effectively through language. It is not surprising, therefore, that 'linguistic disadvantage' has often been considered to be the major cause of lack of success at school. However, whether this is in fact the case, and if so, precisely what this disadvantage consists of still remains open to question. What makes the issue more difficult to resolve is the fact that it is the child from a low S.E.S. background who is statistically most likely to fail at school, and his environmental disadvantages are likely to include relative poverty, poor accommodation, overcrowding, low aspirations, etc., in addition to the putative linguistic disadvantage that is associated with membership of this low-status group (Tizard, 1974).

Those who believe that language is the key factor fall roughly into two groups. On the one hand, there are those who argue that such children simply have a deficit - a lack of vocabulary and syntax necessary for coherent, logical communication. Bereiter et al's (1966) statement that 'the language of culturally deprived children is not merely an underdeveloped version of standard English, but is a basically non-logical mode of expressive behaviour' is probably the most extreme version of this position, but meetings with teachers working in the poorer districts of our cities confirm that this is a quite prevalent view.

Of course, there is a very small proportion of children with very severely retarded language development, and within the large majority of normal children there is considerable variation in the rate of development, but whether the relative retardation of those children who fall below the mean in rate of development is associated with later educational failure has still to be established.

Opposing the 'deficit' view, on the other hand, are those who claim that the language of the children who fail is not deficient or inferior, but simply different from that which is the norm in schools (Labov. 1970). Although such differences between home and school have not been clearly established, they might occur at one or more of several levels: the topics and purposes about which people communicate; the syntactic forms in which meanings are realised; or the accent and paralinguistic features associated with speech. All such differences are seen as being related to cultural or sub-cultural differences, and it is argued that no one set of language norms is superior to any other. However, although the case for recognising the value and effectiveness of distinctive speech styles within the communities that use them has been conclusively made (Labov , op. cit.), it may still be true that differences in speech style between home and school can, in practice, put a child at a disadvantage because they impede effective communication.

There are two ways in which we hope to be able to contribute evidence relevant to this debate. Firstly, by following some of the children through the first two years of schooling, recording samples of their typical linguistic interaction in school, we hope to find out the extent to which this differs from their pre-school experience of linguistic interaction at home, and whether such differences, if they occur are related to the child's success in school. Secondly, we intend to carry out retrospective comparisons between the children in the sample who are found to be markedly different in school success and effectiveness of linguistic communication in school, in an attempt to identify characteristics of pre-school linguistic experience associated with differential success in school.

In this latter context, we are particularly interested in investigating the specifically interactive dimensions of the children's pre-school linguistic experience. In our present coding procedure, each child utterance, with its context of preceding and following utterances, is coded relatively independently. Although this is quite adequate for the types of analyses already described, it fails to capture the full interactive nature of conversation - the way in which a second or subsequent utterance in a conversation, as well as having its own specific purpose and topic, picks up and, in various ways, develops the stated and implied meaning of the previous utterance (Turner, 1975). One of the ways in which this is achieved is by means of various cohesive devices, and occurrences of these are already accounted for in our coding scheme. But equally important as a means of relating one utterance to what went before is the system of differential information focus signalled by the placement of tonic stress, which allows a second speaker to indicate how his contribution, for example, accepts or contrasts with the preceding utterance. Intonational characteristics of utterances, such as change of pace and unusually large changes in pitch also play an important part in what Barnes and Todd (1975) have identified as the management of the interpersonal relationship in conversation, as opposed to the management of the joint construction of the topic, which is more centrally carried out by the selection of options from the mood system, for example, interrogative as opposed to the declarative.

An example will help to illustrate what features of the interaction are being focussed on. It is taken from one of the 90 second samples recorded when the child in question was 2 1/4 years old. (The full text and the conventions of transcription are given in Appendix I*). Jacqueline (J) is in the kitchen with her Mother (M), who is at the sink, washing the dishes. J is playing with the clothes that have been tipped out of the laundry bag in preparation for washing.

Utterance
No.
4. J: // Put all . 24 THINGS in// (to self)
J is putting washing in bag
5. J: // I'm 'putting 35 THINGS in//
6. M: //24 NO 53 DARling (v)//
7. M: //'No ' no ' no 15 NO// (accelerating)
40. J: //24 LINda 'not 'going//54 WASH them//
41. M: //35 NO//
42 M: //35 MUMmy 'wash them//

In 33, J tries to express all the information in one confirmation-seeking utterance, but has difficulty in co-ordinating the parts. M asks for a repetition (34) and J, assuming that 'socks' as topic is jointly understood, tries in 35 to express her observation in a simpler form, but, as the hiatus suggests, still has difficulty. The arrangement of the components 'Linda' 'wash' and 'them' (=socks) in the utterance she produces encodes a simple Agent Act on Object clause, in which 'Linda' is the Agent. But this does not correspond with the situation, nor as far as one can judge with J's intention. The problem seems to result from a conflict between two intentions: the first is to ask for confirmation of the proposition that the socks are to be washed; the second is to focus attention on the fact that it was Linda who gave her the socks. But having reduced the topic, 'socks', to the status of the anaphoric pronoun 'them', she can no longer qualify it by means of a relative clause in which 'Linda' as Agent could be given information focus. In 36 and 37 M rejects J's statement as inaccurate and using marked tonic placement, offers a contrasting true statement, which matches the surface form of J's utterance. J seems unable to accept this way of putting it and in 38 reaffirms her original formulation, using contrasting marked tonic placement. M again rejects J's statement, and this time explicitly negates it (39). In 40, J, using marked tonic placement, restates her understanding of the fact that it is not Linda who is going to wash the socks, and signals her wish for confirmation of this statement. M confirms the correctness of J's negative statement and (41-42), picking up the contrastive implication of the tonic placement in J's utterance, restates the situation positively with 'Mummy' as agent. J's silence is to be taken as agreement with this jointly constructed description of the situation.

These episodes have been commented on in some detail, because they bring out rather clearly the way in which the mother's speech is relevant, not only to the external situation, but also to her understanding of the child's intentions. The second episode, in particular, suggests one way in which, through participation in dialogue in which meaning is negotiated, the child learns to control some of the formal systems that allow speech to be made relevant to the situational and interpersonal context.

It is this characteristic of 'mutual relevance' in a child's experience of conversation that we think may be important for his success on entry to school. Discussion of linguistic disadvantage has usually distinguished between children in terms of size of vocabulary, range and complexity of sentence types used and so on; however, it is clearly not the ability to produce linguistic forms, as such, that is the mark of the linguistically successful child, but rather the ability to use these resources of vocabulary, syntax and intonation to communicate effectively in a range of situations, where effectiveness is quite largely a matter of making what is said relevant to the needs of the listener as well as to the intentions of the speaker.

To achieve this communicative competence the child needs appropriate experience of such use of language in his pre-school home environment. Research to date (e.g. Snow, 1972; Fraser and Roberts, 1975) has shown that parents, particularly mothers, modify their speech style when speaking to young children by restricting the length, complexity and range of vocabulary of their utterances, and by producing frequent repetitions of well-formed, contextually appropriate models. But how far do all parents provide the essential experience of jointly constructed meaning-making, from which the child can learn how to match what is said to the total requirements of the communication situation?

By way of contrast with Jacqueline, consider Sally, whose typical experience is well illustrated by the two samples presented in Appendix II. The physical situation is not dissimiliar to Jacqueline's, and Sally, who is by no means a 'non-verbal' child, chatters away while her mother is engaged in the domestic task of preparing the dinner. However, all that Sally can be assumed to be learning from this experience is that speech is a means of expressing individual concerns and attitudes; there is nothing of the cooperative endeavour to achieve mutual understanding that characterised Jacqueline's experience. When Sally's interests and intentions conflict with her mother's, her mother makes no attempt to negotiate a mutually agreed resolution; what Sally is learning is not to expect responses that are relevant to her intentions and ultimately, one might expect, not to listen nor to adjust the expression of her own meanings to take account of the needs of others. Jacqueline's mother is a similar situation, attempts to treat Jacqueline as an individual with interests and intentions of equal validity to her own. She listens to what Jacqueline has to say and continues the dialogue until discrepancies are resolved. What Jacqueline is learning, we can assume, is that, in communicating with someone else, it does matter how one's meaning is expressed and that where there is disagreement, this can be resolved by verbal negotiation. When she fails to make her meaning understood, she has the support of an adult who attempts to understand her intention and helps her to find the form that matches that intention.

Lest this marked difference between the two mother-child pairs be attributed to the effects of social class, it is worth noting that both Jacqueline and Sally come from the same class of family background: both fathers are construction workers and none of the parents has had more than minimal education. Nor is there a simple contrast in terms of code. As in most adult/pre-schooler conversation, interchanges in both homes are restricted in form and closely tied to context. The important difference is that, unlike Sally, Jacqueline is learning that in order to communicate successfully, one has to modify one's message to take account both of the situation and of the knowledge and purposes of one's listener, and that on occasions this requires one to make one's meaning explicit.

Jacqueline and Sally are now nearing the end of their first year of formal schooling, during which time they have been observed as part of the 'Children Learning to Read' project (Raban, 1975). It is nor surprising to learn that Jacqueline is rated by her teacher as a high achiever, whereas Sally is rated as well below average; since entering school, Jacqueline has learned to read quite fluently, whereas Sally's teacher is having difficulty in getting her to engage in any form of School activity.

If the ability to take part in dialogue by adapting one's speech to the requirements of the communication situation is as important as has been suggested, the linguistic disadvantage experienced by some children on entry to school may not be so much due to a lack of formal linguistic resources, nor to differences of dialect and accent (although teacher expectations based on stereotype responses to such features of children's speech are probably important (Giles, 1970; Shafer and Shafer, 1972)), but rather to what their pre-school experience has taught them - or rather not taught them - about what people do with language. In the classroom environment, where intentions have to be explained and actions justified, and where each child is expected to share his news with teacher and fellow pupils, it is a disadvantage indeed not to have learnt to play one's part in dialogue, but to be restricted instead to the unilateral expression of one's own individual point of view.

To stress the importance of being able to take the point of view of the person with whom one is interacting is not new, of course. It has been a pervasive theme of Piaget's writings on cognitive development, and, in a pedagogical context, it has been one of the main aims of most of the 'functionally' oriented language intervention programmes such as those of C.U.E.S. (in press), Blank (1973), Tough (1973). Where we hope to make a new contribution is in the exploration of the ways in which this ability is acquired and of the types of linguistic experience that provide opportunities for its acquisition: our task now is to find some systematic way of exploring the means whereby mutual relevance is achieved.

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APPENDIX

LANGUAGE DEVELOPMENT PROJECT
Conventions and Layout for Transcription

The speech of the child being studied is set out in the left-hand column. The speech of all other participants is set out in the centre column, with identifying initials where necessary. Each new utterance starts on a new line.

Contextual information is enclosed in square brackets [ ] and set out in the right hand column.

Interpretations of utterances and descriptions of intonation where applicable, are enclosed in round brackets ( ) and included immediately after the utterance to which they apply.

Utterances, or parts of utterances, about which there is doubt are enclosed in angular brackets < >. Where two interpretations are possible they are both given, separated by an oblique stroke.

Symbols of the International Phonetic Alphabet are used for utterances, or parts of utterances, which can be clearly heard, but which cannot be interpreted with certainty. Phonetic symbols are always enclosed by oblique strokes. Except where there is doubt about the speaker's intended meaning, the speech is transcribed in Standard English Orthography.

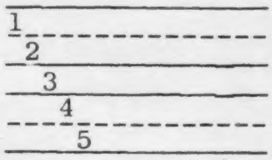
The following is a list of additional symbols used, with an explanation of their significance. (Stops and commas are not used as in normal punctuation).

?	Used at end of any utterance where an interrogative meaning is considered to have been intended.
!	Used at the end of an utterance considered to have exclamatory intention.
'	Apostrophe. Used as normal for contractions and elision of syllables.
CAPS.	Capitals are used where part of an utterance receives unusually heavy stress to convey emphasis or contrastive meaning.
*	Used to indicate unintelligibility, for whatever reason. The number of asterisks corresponds as nearly as possible, to the number of words judged to have been uttered.
... .8.	Stops are used to indicate pauses. One stop is used for a very short pause. Thereafter, the number of stops corresponds to the estimated length of the pause in seconds. Pauses over 5 five seconds in length are shown with the figure for the length of the pause.
___	Underlining. Where utterances overlap because both speakers speak at once, the overlapping portions are underlined.
" "	Inverted commas are used to enclose utterances considered to be 'Speech for Self'.
	Slur mark indicates unbroken intonation contour where a pause or clause boundary might otherwise indicate the end of an utterance.

-	Hyphen indicates a hiatus, either because the utterance is incomplete or because the speaker makes a fresh start at the word or utterance.
(v)	Used to indicate that the preceding word was used as a vocative, to call or hold the attention of the addressee.

Conventions of Transcription

//	Tone-group boundary
CAPS	Tonic syllable
'	Stressed syllable
⟶	Lengthened syllable
↑ ↓	Shift up or down of the average pitch range over pre-tonic syllables (i.e. high or low "key").
⇈ ⇊	Shift to extra high or low "key" (moving outside the normal limits of the pitch range).
*	Some aspect of the coding given is problematic.
Tone	A system of numbers is used to refer to pitch movement at the tonic, where the tonic is defined as the tonic syllable and any succeeding syllables to the end of the tone group. The pitch range of a speaker is divided into five bands numbered 1-5 from high to low. e.g.



The following information is retrievable from this number coding.

(a) Direction of pitch movement:

Fall: smaller number first (e.g. 13, 25)
Rise: larger number first (e.g. 31, 43)
Rise-fall: (e.g. 324)
Fall-rise: (e.g. 243)
Level: repeated number (e.g. 33)

(b) Onset level of the pitch change:

Mid	3
High	1 or 2
Low	4 or 5

(c) Range of pitch movement:

For example with a falling tone

Extra wide	15
Wide	25, 14
Neutral	13, 24, 35
Narrow	12, 23, 34, 45

Note:

Where (part of) a pretonic is marked for extra high or low "key" (e.g. ↑↑ or ↓↓), the subsequent tone numbers must be interpreted in terms of the redefined limits of the pitch range.

Name: Sally Record No: 7
Date of birth: 8.4.70 Date of recording: 10.1.75

SAMPLE NO. 8 Participants: Mother, Sally Location: Kitchen
Time: 11.57
Activity: Mother cooking lunch, Sally watching.

Ma (v)		[Radio on]
I've got a * cos . I didn't - I - that make me sick that do.		
	NR	
Ma (v) can I go out?		
	No It's cold out now One two three four five six seven eight nine ten (sings)	[Mother counts before lighting the gas stove]
Mum (v) what we got?		
	NR	
Mum (v) let me have a look what's burning		
Mum (v) that egg's burning in'it?		
	What?	
That egg's burning		
	..	
Oh Mum (v)! (with consternation) Which - where my egg?		
	NR	

Mum (v) we both got to have eggs

I'll be a bag of nerves if you don't shut up (shouts)

...

Mum (v)

Lift your bag up (command)

NR

Oh! what's that?
"***** <all the food>"
**
Mum (v) we both -

[Mother beating eggs]

..30..

SAMPLE NO. 9

Participants: Sally, Mother
Time: 12.07

Activity: Mother preparing, Sally watching

Location: kitchen

..

"Oh"

..4..
What are you doing?

You do it the hard way don't you?

NR

..

"Don't fall out"
Ah! baked potato!
****

[Sally doesn't seem to expect any answers]

..6..
Oh God!
..7..

That egg and chips		
	..	
That egg is dirty Mummy (v)		
	NR ..6..	
Oh! bacon!		[Sally mistakes chops for bacon]
Now what's this?		
	What! (exclamation) You got bacon on the mind or summat?	
NR		
	..5..	
"Oh"		
	Right take a stool in now ** ready yet	
	..	
Mum (v) this is a pancake		
Pancakes		
	It's not a pancake	
	It's an omelette (brusquely)	
Omelette (repeats)		
O-o-o-o Omelette omelette I likes omelette		
	..5..	

Name: Jacqueline　　Record No. 5
Date of birth: 26.8.70　　Date of recording: 1.12.72

SAMPLE NO. 1　　Participants: Jacqueline and Mother　　Location: kitchen
Time: 9.15
Activity: Jacqueline is playing with laundry, Mother is washing up.

---

*

1. //24→LAUNDry 'bag//　　[J. has the laundry bag]

2. //35→LAUNDry 'bag//

..

3. //↑In 14 THERE//

4. // ↓'Put all . 24 THINGS in//　　[J. is putting washing in the bag]

5. // I'm 'putting 35 THINGS in//

6 　　//24 NO 53 DARling (v) //
7 　　//'No ↑'no ⇈ NO// ('accel.'

..4..

8. // ↑'I want to ⇈ 'put those 12 THINGS// ('accel.')

9. 　　//33 YES//

10. 　　//When 'they're 24 WASHED you' can//
11. 　　//'Not 24 beFORE//

...

12.	//What's 24THAT 54 MUM (v)?//		
		NR	
		..4..	
13.	*//→'You 'dirty 45 CAT// (to baby Jane)		
14.		Oh she's not	
	(laughs)		
15.		She's not a dirty cat	
16.		Are you darling (v)? (to baby Jane)	
17.		No (command to J.)	
18.		Leave Mummy's washing alone please (firmly)	
19.		Mummy's got to wash all that	
20.	//'Wash 243 LINda's -//		[An Auntie Linda gave J. some socks and she now refers to them as Linda's socks.]
21.	There's my socks		
22.		***	
23.	//14 LINda 'bought // some 34 SOCKS 54 MUM (v)//		
24.		Yes there's your socks	
25.	Lin-		
26.		Mummy's washing them.	

27.		I've got to do all that now
28.	//25 LINda 'bought you//45 SOCKS 54 MUM(v)//	
29.		Yes
30.		Linda bought you socks
31.		They're dirty
32.		They've got to be washed.
33.	Did. Linda bought <you> me got . ('false-starts') washed? (= have the socks Linda bought me got to be washed?) (Trying to repeat Mother's words).	
34.		Pardon?
35.	//24 LINda wa-// 324 WASH them// ('self-correction')	
36.		//24 NO//
37.		//35 MUMmy's 'going to 'wash them//
38.	//15 LINda 'wash them//	
39.		//24 NO// 'Linda's 35 NOT 'going to 'wash them// ..
40.	//24 LINda 'not 'going//54 WASH them//	
41.		//35 NO//
42.		//35 MUMmy 'wash them// ...

43. //'This is Daddy's
43 SOCKS 'Mum (v)//

44. Pardon?

45. //'This is 35
DADdy's 'sock//.

COLLECTING CONVERSATIONAL DATA: NOTES ON SOCIOLINGUISTIC METHODOLOGY

Michael Stubbs
Department of English Studies
University of Nottingham

Abstract

In the social sciences, with a few striking exceptions, there is strangely little discussion in published papers of the problems of collecting and analysing language data. In addition, analyses of conversational interaction are a relatively recent field and there is a consequent lack of accepted conventions for collecting and presenting data. This paper discusses a few problems, both theoretical and mundanely practical, of data-collection in sociolinguistics. Some problems are: How should data be described and presented to readers? How much data does one need? How should it be selected? How should it be selected? How should analyses be corroborated? What techniques can be used in order to make significant observations about what is usually taken for granted? Considering such questions helps to focus on the complex interpretive work which we all, researchers and speakers, perform on talk.

> "Less than twenty years divide us from the time when the study of methods was the reigning passion of American linguistics; yet the status of methodology has fallen so fast and so far that it now lies in that outer, extra-linguistic darkness where we have cast speculation on the origin of language and articles about slang". (Labov, 1972b: 97).

With Labov's recent elegantly written paper (1972b), questions of sociolinguistic methodology and the associated theory of data-collection have regained respectability. In this article, I discuss the kinds of issue that Labov raises, particularly with respect to data for conversational analysis, and also some aspects of the theory of data-collection with which Labov does not deal.

Linguists, and social scientists in general, are, with a few exceptions, strangely coy about discussing in print the kind of problems that are involved in collecting and analysing data. Some perhaps do not wish to admit that they have problems with basic research tasks: What do I say to my informants? How much data do I need? My thinking is in a rut - how can I get some new ideas? Others possibly do not see such basic research tasks (collecting, transcribing, coding and comparing data) as in any way problematic or of interest. Alternatively, for many linguists, at least, it may just be that methodological questions have been out of fashion since Chomsky reacted strongly against the emphasis on field-work and procedures in American linguistics from the 1920's to the 1950's. (This is the point of the quote above by Labov). In this paper I will try to combine discussion of some aspects of the theory of data-collection in sociolinguistcs with discussion of some of the practical, day-to-day problems of sociolinguistic research on conversation.

1. THE LACK OF ACCEPTED PROCEDURES IN SOCIOLINGUISTICS

Paradoxically, many papers on spoken interaction do not attempt to analyse and present data on verbal behaviour which has been systematically, in whatever way, collected, recorded or observed in specific, naturally occurring social situations. This is not the place to discuss in detail the failure of the social sciences, until relatively recently, to provide descriptive theory for everyday behaviour. But for striking, and very different, examples of well-known papers on social interaction which present no data, see Goffman (1955), Hymes (1962) and Berstein (1972). For the present, we can simply ask, with Alice, "what is the use of a book without pictures or conversation?" (Carroll 1966:11).

Consequently, the more problematic aspects of data-collection are rarely discussed. When it is made clear what data do support an analysis, these sometimes turn out to be very far from observed spoken interaction. One example is Hymes' (1966) ethnographic account of three speech events in Wishram Chinook culture, which is explicitly based on Hymes' reinterpretation of Spier and Sapir's interpretation ("memory ethnography") of events which were not otherwise recorded. Yet it is precisely this problematic relationship between data and analysis via interpretation which must be one central topic of study for sociolinguistics. Hymes is the first to emphasise that the analyses which he proposes within the "ethnography of communication" are at the level of general cultural patterns of speech behaviour, and not analyses of specific interactions. He is concerned with proposing a general schema or heuristic framework which would be of help to a researcher in the field, rather than with providing a model for analysing data on spoken interaction. I would propose, however, as a principle for sociolinguistics, that any analysis of speech behaviour will ultimately stand or fall on its success in coming to grips with audio recordings of what speakers actually say to each other in specific, naturally occurring social settings.

When there are few accepted procedures of analysis, as in research on spoken interaction, it is particularly important to keep the reader in clear view of precisely what data the analysis has been based on. Labov (1972b) insists on the "checkability of data" and proposes that more tapes and transcripts should be published. Loman (1967) has simply published transcripts of conversations in a Negro American dialect, without analysis. However, whilst the publication of such data is useful, the ideal is the publication of appropriate data plus analysis. Sinclair and Coulthard (1975), in their study of classroom language, have also argued for the need to give the reader a clear idea of how the data have been handled when there is no well-defined and established methodology. Alongside general descriptive theory of classroom language, they publish some 50 pages of coded transcriptions of teacher-pupil talk. The linguistic ethnomethodologists have recently been particularly scrupulous, as part of their general theoretical stance, about quoting the (small fragments of) data on which their analyses of conversation are based and have discussed at length certain aspects of the problematic nature of the relation between such data and theory. Some of the most important articles which contain transcribed conversational data plus analysis, are by Sacks (1967-72), Schegloff and Sacks (1973), Schegloff (1968, 1972), Jefferson (1972, 1973), and Turner (1971, 1972). Many more such studies have appeared more recently.

2. TRANSCRIPTION AS A THEORETICAL PURSUIT

However, data-collection/recording and transcription are not themselves mechanical procedures, which can be left unproblematically to a research assistant, as is often done. Abercrombie (1954) emphasises how even the process of transcribing tape-recordings is problematic, and embodies "an initial classification and even theorising about the raw material". Birdwhistell (1970:13) discusses briefly how skilled secretaries who are asked to do close transcriptions of tape-recorded conversation, make about one "mistake" every five words. Unfortunately, Birdwhistell does not make clear precisely what he means by "mistakes", but such data on how audio-recordings are "tidied up" to bring them into line with conventions of written language, would provide valuable secondary evidence concerning how people hear and interpret conversation. In recent work I have had practical experience of the disagreements which can arise within a group of linguists working together on the same tape-recorded data, over what constitutes a "correct" transcription at word level. Much more discussion and dispute is normal over such features as intonation, tone-group boundaries and timing of interruptions. And experimental data is available on how even trained phoneticians using the Trager-Smith system of intonation-transcription use their understanding of meaning in order to do what might appear superficially to be the mechanical task of transcribing intonation countours (Lieberman, 1965). Only someone who has regularly worked with audio-recorded conversational data, even with "good", clear recordings, knows the tricks his ears can play: how whole words can simply not be heard even after repeated listening, how overlaps are similarly not heard, and how one person can sometimes transcribe at first hearing a phrase that a colleague has failed to make sense of after hearing it 50 or 100 times on a loop-repeater. Such auditory hallucinations are real problems, both practically and theoretically.

A most important point is that much of the "complexity" of spoken conversation is evident only in close written transcriptions: it is typically not evident to the participants themselves. I am thinking of such frequent conversational complexities as: false starts, hesitations, self-corrections, ungrammatical and unfinished sentences, overlapping utterances, and so on. Conversation looks odd, incoherent and broken when seen in the written medium - but it does not sound odd to those taking part in it. This is not to say that the complexity is an artefact of changing the medium of transmission, but that listeners listen selectively to conversation. They do not hear many of the overlaps, false starts, hesitations, and so on. The presentation of spoken interaction in the form of a transcription has therefore an estrangement effect. We can see that conversation is not so self-evidently coherent as we might have thought, but that the coherence is achieved through interpretation. The problem is then: how does talk which appears superficially to be "sloppy", "incomplete", "incoherent" or "defective" nevertheless produce an impression of order for its participants? How can we explain that conversation which is evidently, to the eye, full of stops, starts and stammers, nevertheless sounds coherent? A close transcription of spoken conversation can reveal even to the unbeliever ways in which the perceived order of the social world is but an elaborate illusion, constructed by interpretation.

Note, however, that it is possible to stand this formulation of the theoretical importance of "mere" transcription on its head. For a close transcription can reveal types of very detailed conversational order at levels at which conversationalists would never suspect any. Such "intense" organisation has been especially the topic of Sacks, Schegloff and Jefferson (in the articles quoted above).

These problems of how data are preinterpreted by apparently routine research tasks such as transcription, are seen even more acutely with respect to field notes on speech behaviour. The analysis does not begin when the researcher writes about what he has written in the field. In making notes in the field, he is already interpreting, analysing and making choices about what to record and what to miss out. These choices themselves draw upon the communicative competence which is the very topic of study.

Suppose, for example, that a study of classroom language is based on observational notes on teacher-pupil talk taken in classrooms. Assuming that the researcher has successfully gathered examples of "typical teacher-talk", what knowledge did he draw on in the classroom to enable him to do this? This knowledge, about how "good" examples of teacher-talk can be recognised, is precisely one topic of study. Such notes cannot be treated as a "mere" resource, to be analysed later in the quiet of one's office. They already embody one type of analysis. Labov (1970) states the problem as follows:

> "There are many acts of perceiving, remembering, selecting, interpreting, and translating, which lie between the data and the linguist's report, and these are almost all implicit in such papers".

Labov, having remarked ironically (1970:84) that linguistics is

> "suffering from difficulty in coming to grips with the fundamental data of language",

provides the most coherent statement in the literature, on theoretical problems of field work and data collection.

3. LABOV ON SOCIOLINGUISTIC METHODOLOGY

Broadly speaking, Labov has done two types of sociolinguistic study: survey-style work on language variation in a speech community, focussing primarily on phonological and grammatical variables (e.g. Labov 1966, and papers in Labov, 1972c); and, more recently, work on conversational analysis and the organisation of speech events (e.g. 1972a, 1973). But many of his principles apply to both types of study. Labov is concerned with methods of observing speech as social action, and of gathering empirical data to choose between competing theories of language in use. He does not explicitly deal with ways of generating theory from data, in the sense in which I discuss this in section 6 below.

His most important point may simply be his encouragement to other linguists to ignore various self-imposed restrictions on twentieth century linguistics, and to emphasise: that it _is_ possible to observe directly linguistic variation; that speakers' feelings about language _are_ accessible; and that linguistics should use _non_linguistic data to explain linguistic variation.

Labov makes clear various principles of sociolinguistic study. These principles are based mainly on the premises that there are no single-style speakers, and that speech elicited in any situation of observation will inevitably be more formal than the speaker's most casual style. He gives advice on controlling interview situations to elicit different styles of language from formal to casual. And he proposes supplementing interviews by collecting data from tests, elicitations, experiments, observations and different types of recordings. The most condensed statement of these principles and practical methods is Labov (1972b), which brings together principles developed over his previous empirical studies.

However, in parts of his methodological statements, Labov appears to go back on his own succinctly expressed warning, quoted above, about the indefinite string of interpretations which lie between data and analysis. He argues (1972b:68) for "the possibility of being right" in producing theories of language-use, putting forward this argument with reference to Popper's principles concerning the nature of scientific explanation. The article ends with the sentence:

> "Data from a variety of distinct sources and methods, properly interpreted, can be used to converge on right answers to hard questions". (My emphases).

Labov is clearly arguing for a "God's truth" view that language, as a system in use, has a structure that is "out there" and which the linguist has to work out. For an equally extreme God's truth statements, compare the final sentences of Labov 1970:

> "... the kind of solutions offered to problems ... are deeply embedded in the data. It is reasonable to believe that they are more than constructions of the analyst - they are properties of language itself".

He is implicitly opposing the "hocus-pocus" view that the structure is, at least partly, a product of the linguist's interpretive analysis. But Labov's position appears contradictory when he talks within one sentence of "interpretations" and of "right" answers, since to emphasise the interpretive work on which the analysis depends, is to emphasise that the analysis is essentially and unavoidably a researcher's product. He is, in any case, misrepresenting Popper, who argues for the relativity of basic statements in science, and that we can never know if we are "right":

> "Theories are ... *never* empirically verifiable. ... The empirical basis of objective science has nothing 'absolute' about it. Science does not rest upon solid bedrock. The bold structure of its theories rises, as it were, above a swamp". (Popper 1959:40, 111. Emphasis in original. Labov's references are also to Popper 1959).[1]

There are certain other problems concerned with the theory of data-collection in sociolinguistics, which Labov does not discuss in any detail. I will discuss some of these problems below, but first I should mention some important practical problems involved in sociolinguistic fieldwork.

4. PRACTICAL PROBLEMS

With reference to very practical problems, Labov is again in the forefront, reassuring researchers by emphasising as genuine such problems as: where should the microphone go, and how can the best quality recordings be obtained? What does the field worker actually say to his informants when he comes face-to-face with them? He says (1972b: 111) that he is often asked questions such as: "Under what pretext do you speak to these people?"

The recording problem is especially difficult in schools, for example, with large numbers of speakers involved, echoing corridors, bells, bare floors and walls, no curtains, and scuffling feet. A compromise solution which I have adopted in studies of classroom language is to tape-record small groups comprising a teacher with up to seven pupils; and to take observational notes in traditional sized classes as a check on the type of speech recorded. In a comparable study, Sinclair and Coulthard (1975) also tape-recorded small groups of pupils with a teacher; they made no check by observational methods, but analysed a few tapes of whole classes recorded by others. In recording small groups, I have found that a cassette tape-recorder with an omnidirectional microphone, placed on the teacher's desk or worn by him as a lavaliere microphone, is adequate for a very clear recording of the teacher and understandable recordings of pupils, even of foreign speakers.

The other main practical problem in conversational analysis is the amount of time needed for transcription, which is of course only a preliminary to coding or other types of analysis. Transcription is an enormously lengthy business, and in itself cuts down the amount of data that can reasonably be analysed. A discussion lasting 50-60 minutes takes up about 30 pages of transcript, typed double spaced. Transcription time varies enormously depending on the quality and complexity of the recording, but it could take a minimum of 20 hours to transcribe such a discussion down to word level and hesitation phenomena; and correspondingly much longer to transcribe for intonation or phonetically. This is about the time quoted also by Stern, ed. (1969: 164). Pittenger et al (1960) says that it took 25-30 hours to transcribe the 5 minutes of interview they use in their book, i.e. down to narrow phonetic transcription. Birdwhistell gives even longer transcription times for dealing with kinesic data. He claims (1970:xii) to have reduced transcription time from about 100 hours per second to less than one hour per second.

But the amounts of data which are necessary or useful for studies on spoken interaction is a theoretical question, to which I now turn.

5. HOW MUCH DATA?

Different amounts of data such as tape-recordings or notes, are needed for different purposes. More data are needed to compare different groups of speakers in situations, for example, than to isolate characteristic features of a discourse variety as such. Birdwhistell

(1961), who is interested in the system underlying people's knowledge of how to behave in public, stresses "the sheer repetitiousness of human behaviour". He claims to have isolated basic patterns of behaviour in 20 second stretches of film. Talking of patterns of language-use according to social class stratification, Labov (1970) claims that patterns emerge from samples of only 25 speakers, and that results are possible with only 5 speakers in each cell, and 5 to 10 samples of each linguistic variable from each speaker. To study independent variables which correlate with linguistic behaviour, e.g. age, ethnic group, etc., Labov (1966) estimates that a larger sample of about 80 speakers is required. To study sociolinguistic variation, it may not be necessary, then to analyse statistically the speech of large numbers of informants. Sankoff (1972) finds that in studies of complex speech communities, a well-chosen sample of 50 to 150 speakers can represent the whole range of variation existing within that community. But the notion of a sample being "well" or "intelligently" chosen introduces implicitly the concept of "theoretical sampling", which I develop from the following section onwards.

There are many striking examples of how very general theory may result from study of small amounts of data. In spite of the criticisms which Labov (1970, 1973) makes about Chomsky having recourse to his own intuitions in producing data, Chomsky has certainly shown that advances in linguistics do not necessarily come from poring over vast amounts of data, but can also result from analysing fragements in great detail. Chomsky has proposed various linguistic "universals" almost entirely on the basis of a small subset of the sentences of English. He can be faulted insofar as his claims should be tested on other languages than English in order to be empirically corroborated. But he cannot be faulted in so far as his primary aim is to generate formal linguistic theory, and to make refutable claims about formal constraints on syntax.

Similarly, in discourse analysis, Sacks has isolated highly general mechanisms, such as "membership categorisation device" and "adjacency pair", by analysing conversational exchanges of only a few utterances in length (Sacks, 1967-72) or by "over-analysing" a sequence of just two sentences (Sacks, 1972a). Other illustrations that very general descriptive statements can emerge from a close analysis of small amounts of conversational data are Goffman's (1971) analysis of "supportive" and "remedial" interchanges, and Schegloff (1968) on the first five seconds of telephone calls.

The argument that research on spoken interaction is not necessarily advanced through the accumulation by data-mongering of vast amounts of undigested "facts", brings us to the concept of "theoretical sampling".

6. THEORETICAL SAMPLING

Concepts of "sampling" traditionally involve the notion of randomness. Either the researcher dips into a population entirely at random, on the assumption that a large enough sample will show the whole range of behaviour he wants to study, or more usually, he makes a compromise, such as dividing up the population into theoretical categories, e.g. social class groups, and then dips into each category. But it is very difficult, if not impossible, to get a theoretically random sample. To take a very simple example, the pin-and-telephone-book method will produce not a random sample, but a sample biased towards those people in middle and upper income groups, who have telephones; although the resulting sample may well be negligibly biased, for practical purposes, on criteria other than social class (unless

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(unless you hold that social class correlates with everything!) Similar biases creep into more sophisticated methods.

An alternative to trying to obtain a random sample, is to be intelligent and explicit about choosing a sample which will give special insights into whatever one wants to study. This is essentially the concept of theoretical sampling, proposed by Glaser and Strauss (1967). It involves seeking out people and situations which are likely to be particularly revealing or fruitful with respect to the phenomena in which one is interested. It is a way of gathering suggestive and rich data, in as pure a form as possible, and with as little time wasted as possible. The researcher chooses groups of situations that will help to generate to the fullest extent the properties of his theoretical categories. Parlett and Hamilton (1972) combine the concept of theoretical sampling with "progressive focussing", which is theoretical sampling within theoretical sampling, and similar to the concept of a "tapered corpus" (Samarin, 1969:70, after Twaddell, 1954). Progressive focussing implies a flexible methodology which allows new information to redefine and clarify emerging problems as the investigation unfolds. Problems are not predefined from the outset of the investigation: when this is allowed to happen, the methodological tail has wagged the dog.

Glaser and Strauss put forward these recommendations within the general argument that anyone can provide a "dust heap" of facts, but only the social scientist can provide the theory that makes sense of them. They claim also that concepts that are generated by, or "grounded in", the data collected by theoretical sampling will typically be more understandable to sociologists and laymen alike, than much grand sociological theory which has often no explicit links with data.

The notion of theoretical sampling is present, in an elementary form, in Labov's suggestion (1972b:118) that:

> "the future study of language in context will depend heavily upon the development of means of enriching the data of natural conversation". (My emphasis).

Labov is concerned primarily with eliciting rare grammatical forms, but the point holds good in studies of language functions and conversational analysis. Labov details various interview situations which will elicit different styles of speech along a casual-formal continuum, but does not specify any techniques for enriching the data as such, outside interview situations, or for choosing suggestive naturally occurring situations. His ingenious techniques such as spot questions in stores to elicit answers of, say, "the fourth floor" (to study pronunciation of post-vocalic consonants) are quick ways of collecting data for a specific hypothesis, not ways of enriching data.

As an example of one way in which the concept of theoretical sampling may be applied, consider its use in a study of classroom talk (Stubbs, 1976). My main interest in this study was in ways in which teachers organise or control the conversational situation in the classroom; and one problem was therefore to collect rich data on this use of language. The tape-recorded data used in the study came mainly from traditional-style classroom lessons, in which native English speaking teachers were teaching English as a foreign language to French children. All the talk was in English, and I was particularly concerned with analysing the teachers' language. This highly selective choice of data was made via the concept of theoretical sampling, which was used in two main ways.

The main sociolinguistic concern of the study was to isolate ways in which one speaker may control or organise the development of discourse. Now, teaching situations are a good place to start looking for such types of organisation in talk, since teachers themselves are typically concerned with how to organise the material they present verbally to their pupils. They are keen to show their pupils that there is order and system in their words! They consider it as part of their job to point the coherence in what their pupils may otherwise consider as a conglomeration of unconnected, unsystematic and uninteresting facts. Teachers are also professionally interested in organising other aspects of the communication system in the classroom. They are concerned with: getting and keeping their pupils' attention; getting them to contribute to the lesson when appropriate and to keep quiet when appropriate; checking on whether their pupils understand the point of the lesson; and with clarifying what they think their pupils have not understood. Therefore, taking the teaching situation as an example of a speech event is itself an example of theoretical sampling. It supposes that the particularly asymetrical power relations within most classrooms will provide rich data on the range of ways in which one speaker may control the development of discourse.

Second, tape-recorded data collected in a French-English teaching situation highlight certain peculiarities of the communication situation in the classroom as follows. A native speaking to foreigners is likely to be conscious of having to make an effort to make sure he is "getting across" to his hearers. But this problem probably only exaggerates the essentially similar problem faced by any teacher: how can he check up on whether his pupils understand what he is try to teach them? In other words, to ask a teacher to teach foreign pupils arguably does not present him with essentially different problems (in terms, at least, of monitoring understanding), but only with more acute problems of the same kind. The idea of theoretical sampling was therefore applied here to reveal a form of behaviour which might otherwise be difficult to study in its full range, by setting up a situation which will generate a wide range of this behaviour.

In case it be thought however that such a cross-cultural teaching situation is too "odd" to be of much relevance to "normal" teaching, the tape-recorded data were supported by observation of teacher-talk during periods of classroom observation in traditional "chalk and talk" English lessons in a Scottish secondary school. Rich data generated by theoretical sampling can be used to develop concepts which can then be applied to, or checked against, more "normal" situations.

7. TRIANGULATION

An important part of Glaser and Strauss' argument is that any method may be good for generating ideas[2], and that a combination is probably best. Webb et al (1966) similarly argue the need for combining different methods of research in the social sciences, first since this provides a means of cross-validation, and second since no measure ever taps a single, isolated, pure parameter. So far, in this paper I have argued precisely that all measures are theoretically complex, since they always involve the researcher's interpretations. Webb et al refer to this process of gathering data on a topic from different angles as "triangulation".

Cicourel also uses the term, in a theoretically more loaded way, emphasising that however much we "triangulate", the result will always be "indefinite".

> "I use the expression 'indefinite triangulation' to suggest that every procedure that seems to 'lock in' evidence, thus to claim a level of adequacy, can itself be subjected to the same sort of analysis that will in turn produce yet another indefinite arrangement of new particulars or a rearrangement of previously established particulars in 'authoritative', *'final', 'formal' accounts." (Cicourel, 1973:* 124).

Thus different kinds of evidence may be combined, but the account will always depend on the reader "filling in" knowledge, and will never be finally validated. On this point, compare again the quotes from Popper (in section 3 above) on the ultimate relativity of statements in science. The links between the metatheoretical discussion of Popper (on the philosophy of science) and of Chomsky (on the adequacy of linguistic descriptions), are an exciting but unexplored topic.

It has become fairly frequent for papers on sociolinguistics to insist that different methods be combined in research. For example, Hymes (1964) insists that it is meaningless to study language-use, language functions and attitudes to language as though they were separate, and that different methods are required to study this complex of behaviour and belief. Similarly, Labov's principle of "convergence" in linguistic methodology is that

> "the value of new data for confirming and interpreting old data is directly proportional to the differences in the methods used to gather it". (Labov, 1972b:102).

Labov's own macro-level, survey-style studies on patterns of social class stratification and language variation link data on the use of phonological and grammatical variables, gathered in interview situations and partly checked by unsystematic observation in natural situations, and data on subjective evaluations of language, gathered by artifically constructed tests. (In the subjective reaction test subjects are asked to rate tape-recorded speakers in terms of occupational suitability. And the index of linguistic insecurity requires subjects to choose which of two socially significant pronunciations or words is "correct" and which they themselves use. The measure of "linguistic insecurity" is the number of items on which their judgements differ between "correctness" and reported self-usage). He shows that complementary patterns emerge from different sets of data. His analysis of a speech event (Labov, 1972a, on "sounding" or exchanges of ritual insults in American Negro culture) links data on the grammatical forms and sequencing of "sounds", with inferences as to their function, and with a discussion of participants' own evaluations and explicit discussion of the "sounds". The links made are not, however, discussed by Labov as in any way problematic.

Examples of studies of classroom language which combine different types of data to triangulate on a problem are Delamont (1976) and Adelman (in this volume).

8. THE PROBLEM OF PERCEPTION

One final and very important justification for a form of theoretical sampling, is the problem of perception. There are two distinct problems in research on social interaction. One is to describe it: what are the appropriate descriptive categories? But the first problem is to see what is going on: how can we learn to notice what we normally take for granted? Even so perceptive a commentator on conversation as Harvey Sacks admits to having spent over a year working on a particular piece of data before he noted a central feature of its construction which was "obvious" once pointed out (see Sacks, lecture 3, Spring 1970, April 16).

Much writing on social interaction has stopped short with a kind of awe that it shows such detailed complexity at all levels, including paralinguistic (i.e. intonation, accent, etc.), kinesic (i.e. body motion), proxemic (i.e. body position), as well as different linguistic levels. Pittenger et al (1960) is an early study of spoken interaction, using audio-recorded data from the first five minutes of a psychiatric interview. The study shows great sensitivity to the extreme complexity of what is going on, but this does not lead to any significant generalisation about the functions of different items of communicative behaviour. The analysis, as the authors admit, is entirely at the ideographic level of what is particular and unique. Lenneberg (1962) puts this neatly and ironically in a review of the book:

> "Microscopic interview analysis ... is a new tool for its users. Its resolving power seems to be excellent. Let us hope, now, that we can discover something with it".

Different people react differently to such demonstrations of the complexity of everyday behaviour. Some infer, quite wrongly I believe, that complexity means chaos, that there is no pattern to be found, and that interaction is "natural". Such an attitude is unhelpful and undemonstratable. In order to show that there is no pattern in something, one would have to have tried and rejected every possible pattern: an impossible task, in practice and also in theory. Others infer that complexity cannot be handled and therefore has to be "controlled" by artificial experimental procedures: this may lead them to studying artificial instead of natural behaviour.[3] I believe that both of these reactions are unnecessary. But the problem remains: how do we manage to see patterns in taken for granted behaviour which is awesomely more complex than we generally realise?

A well known reaction to this problem is Garfinkel's, who discusses ways of making visible the "seen but unnoticed" expectancies (1967:36) of social interaction. He proposes (1967:38) techniques "as aids to a sluggish imagination" which "produce reflections through which the strangeness of an obstinately familiar world can be detected." And several of his estrangement techniques are well known, particularly those involving his penchant for deliberately disrupting social scenes:

> "procedurally it is my preference to start with familiar scenes and see what can be done to make trouble" (1967:38).

It is not necessary however artificially to disrupt behaviour: a technique in common use amongst linguists is to focus on situations in which something is naturally going wrong. For example, Laver (1970) discusses evidence about neural control system from hesitations, language disorders, etc. Campbell and Wales (1970) discuss errors in language acquisition as evidence of ways in which children organise experience through language. Fry (1970) uses error-correction in normal speech as evidence for multi-level planning and reception of speech. Marshall (1970) summarises evidence from some pathological speech disturbances. A classic study from another field, based on the same principle, is, of course, Freud's The Psychopathology of Everyday Life (1901) which discusses the deep determinants of slips of the tongue, forgetting of proper names, etc., to argue that "the unconscious does not lie".

Similarly, it is possible to gain insight into routine social interaction, by studying situations which are naturally problematic. I have mentioned above studying the problems of communicating with foreign speakers. Comparably, one might study communication with deaf or blind people. A recent edition of the BBC radio programme *In Touch*, for the blind and partially sighted, discussed listeners' letters on the problem they have of attracting the attention of personnel in shops, and the problems they have when normally sighted people try to engage them in a social encounter before, say, helping them across the street. The discussion focussed on what cues could be substituted for the normal nonverbal cues routinely used to initiate conversation with another person, and therefore revealed aspects of conversation which are problematic for the blind, but *taken-for-granted* by sighted people.[4] As Birdwhistell (1973:112) warns, however, it would be simplistic to believe that the study of the deaf and the blind will somehow isolate communicative behaviours and make them easy to study. Such studies give a different, but not a simplified, perspective. Similarly, Cicourel (1972) and Cicourel and Boese (1972) study native signers amongst the deaf for the insights this gives into oral language: they too emphasise the complexity of signing as a fully developed natural language.

9. AN ILLUSTRATION

As a brief illustration of a few of the points made in this paper, I will append a piece of data with some comments. After some 20 pages of methodology, the reader deserves some light relief. And the reader who has skipped to this point might be encouraged to go back over the more academic presentation of the argument which the data partially illustrate.

So, as a concrete footnote to a rather abstract methodological paper, consider the following short conversational exchange, from my field notes, as a piece [illegible] data which illustrates some of the things that I have been discussing: namely, a *problem* in communication, a moment of *mis*communication, and a long string of *interpretive* work collapsed into a very short interchange, including two *re*interpretations of one remark.

The situation is a small conversational group within a party on an evening during a research conference. C is doing imitations of people. He does a peculiar walk. No-one recognises it. Finally I recognise it as Groucho Marx. The exchange goes:

C redoes walk (1)
MS: *Very good. Ten out of ten. Full marks.* (2)
C: (Pause. No reaction). (3)
(Suddenly.) *You've almost got it* (4)
MS: *I HAVE got it* (5)
C: *Ah*! (6)

I start with a *problem* of how to communicate to C that I have recognised the walk without telling the others the answer. I must not only tell C *that* I know the answer (he might think I was bluffing), but *show* him that I know. Within this short exchange *at least* the following interpretations were performed and solutions to problems found.

(a) I find a play on words: Marx/marks.
(b) I find a context in which to apply this play on words by apparently using the comment "Full marks" to praise the walk as a good walk, funny in itself perhaps.
(c) But I have another problem. If I say "Full marks" on its own, this may not be understood out of context: i.e. I am aware of a possible misunderstanding. One source of trouble might be that some people could mishear it as a name, since that is what they are expecting at this point. If they mishear it as the name "Marx", my play on words would have misfired. So I construct a context which sets up hearers to hear it as I intend, by saying, "Very good, Ten out of ten ...".

(d) I expect C to hear both senses, since I know that he knows the name, and I expect him to bring this knowledge to bear on interpreting my utterance.

(e) C does not react - he does not understand my joke.[4] i.e. he interprets my remark as the others would, as applying unambigously to a description of the walk.

(f) At (4) C reinterprets what I have said. He sees the play on words that I have made, but does not realise that I made it consciously. C now tells me the joke that I have just told him! Presumably he does this as a clue to me and others. He gives me a puzzle to solve, not realising that I have already constructed that puzzle and given it to him.

(g) At (5) I show him that I am aware of the joke. i.e. I solve a new problem: for after (4) I still have to tell C that I recognise the walk. If I say nothing now, my joke is wasted, and doubly - for I now have the chance of a joke at C's expense, i.e. that he has told my own joke, on top of my original play on words.

(h) C reinterpretes my remark (2) for the second time, and then tells me that he has "got the point" and that he now "knows what I am talking about". Note that he inevitably sees both jokes together: he could not see one without the other. He sees my original joke, plus his joke misfiring, plus my topping his attempted joke, plus that we both see all this. At the end of the sequence, he can see the sense of the whole sequence, which he has not seen during it.

For C, the sense of "what is going on" or "what is being talked about" emerges and changes during the exchange.

The meaning which unfolds is also negotiated: expressed informally, I refuse to let C get away with the interpretation of my original remark which (I suppose) he forms.

Obviously this exchange is not typical. We are not always required to solve plays on words. But we do routinely perform long strings of interpretations, collapsed in short and rapid conversational exchanges. Such examples demonstrate the complexity of interpretation of which conversationalists are technically capable.

However, the point of the example is that it is not typical, but illuminative: it shows up sharply what might be less clear in more mundane exchanges. It is a short theoretical sample based explicitly on a problem of communication and miscommunication. I have commented on this exchange only by showing particular examples of some of the interpretations which were probably made, in order to argue that other interpretive work could also have been involved in the exchange.

Having shown this analysis, precisely as it appears here, to C, I received these comments from him which can be used to "triangulate" on the quoted data:

> "You need ... my cultural expectations ... (The incident) was a surprise - it was not in my expectations for how you would be thinking and talking ... As you point out, I did not realise that you had not got the answer but had capped it with a pun ... But the bit left out is the way my strong cultural expectations of you prevented the meaning of what you said being understood by me. If the remark had come from (X or Y) I probably would have got the point".

A central topic for sociolinguistic study is ways in which more general and formalised statements can be made about this kind of interpretive work which is routinely performed on connected discourse. Without such interpretations, discourse is not "connected".

10. CONCLUSIONS

> "In practice, scientific research is frequently a muddled, piratical affair, and we do not service to anyone by pretending otherwise". (Hudson, 1966:29).

I have argued in this paper that finding pattern in the passing social scene involves particular practical problems. But I have also argued that such practical problems are irremediably involved in theoretical questions, when the topic of research is how people interpret social behaviour.

Published papers in sociolinguistics, and in the social sciences in general, rarely give glimpses of the methodological troubles of their authors. Papers appear tidily packaged, as this one is, between introductions and conclusions, and provided with titles, section headings, references, cross-references, footnotes, and quotes from eminent scholars. Behind such papers lie the untidy aspects of research: informants who never turned up, drawers full of collected but unused (unusable?) data, and days spent writing papers on methodology to put off collecting data and analysing it.

NOTES

1. For equally unequivocal statements from Popper, see: "There can be no ultimate statements in sciences" (1959:47); "Science ... can never claim to have attained truth, or even a substitute for it such as probability" (1959:278); "... every scientific statement must remain tentative forever" (1959:280); etc.

2. Compare the Popper quotes in section 3. Popper is similarly unworried where ideas come from, arguing that the origin of ideas is the concern of psychology, but not of the philosophy of science.

3. The papers in Stubbs and Delamont, eds. (1976) discuss the issue of the complexity of social behaviour with particular reference to classroom research. Some of the papers also discuss why many social scientists have tried to avoid the problems of describing everyday behaviour, and propose different concepts and methods for describing classroom interaction.

4. H.G. Wells' (1904) short story, "The country of the blind", is a fascinating example of the sociological insights which can result even from a fictional account of a problematic communication situation.

5. Ways in which jokes are used spontaneously in everyday conversation can provide many insights into the routine structures of interaction. But their complex social functions (e.g. in social control, breaching taboo topics, etc.) have hardly been studied. Analyses of jokes have on the whole been psychological. For papers which do discuss how jokes are used in social settings, see Torode (1976) and Walker and Adelman (1976).

6. The subtitle to this article is "Notes on ..." and this is intended, as there are many important aspects of sociolinguistic methodology which I have not discussed at all. Some further references are: Labov (1972a) discusses many aspects of field-work which I do not discuss, particularly concerning interview and testing techniques; Shuy *et al* (1968) discuss their field techniques in an urban language study; Milroy and Milroy (1977) discuss the problems a fieldworker faces in collecting data in working class communities in Belfast.

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